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ABSTRACT

The Technical Education Demonstration Program helped students aged 16-25 traditionally excluded from technical careers because of lack of training to attain academic and technical skills. Eighty-one teachers attended four-credit summer courses; 500 teachers, counselors, and administrators attended seminars. A demonstration model interfacing mathematics, science, and communication skills with technical education was developed and implemented at a high school for at-risk students, a specialty school, and a comprehensive high school. Enrollment in technical courses was increased and student exposure to technological disciplines was provided through advanced standing agreements awarding credit at Milwaukee Area Technical College (MATC) for high school courses; bringing high school students to MATC to acquaint them with careers involving technology and with the school; and credit courses titled "Careers in Computers" and "Health Careers." Students were exposed to current technology and employer expectations through awareness partnerships that provided speakers in the classroom, informational interviews, and employee shadowing and through a showcase of education and work opportunities. (The 28-page report is followed by these appendixes: third-party evaluation report; 52-item bibliography; partnership agreement between MATC and a high school; advanced standing chart; brochure on MATC tour; awareness partnership proposal; sample quarterly newsletters; publicity; and advisory board committee list.) (YLB)

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TECHNICAL EDUCATION DEMONSTRATION PROGRAM

FINAL REPORT

DECEMBER, 1992

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TECHNICAL EDUCATION
DEMONSTRATION PROGRAM
Final Report

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TECHNICAL EDUCATION DEMONSTRATION PROGRAM
FINAL REPORT
October 1, 1990 - September 30, 1992

Executive Summary

The Technical Education Demonstration Program facilitated the attainment of academic and technical skills and provided access to technical employment for students between the ages of 16 and 25 who were traditionally excluded from technical careers because of lack of training. The strategies used to accomplish this included:

1) Improving teacher capability through teacher workshops, through; a) four credit summer courses attended by 81 teachers. b) half or full day seminars attended by 500 teachers, counselors and administrators. c) CRYSTAL

2) A demonstration model interfacing math, science and communication skills with technical education, through; a) integration at a high school for at-risk students. b) integration at a specialty school, c) integration at a comprehensive high school.

3) Increasing enrollment in technical courses and providing student exposure to technological disciplines, through; a) advanced standing agreements awarding high school students credit at the technical college for courses taken in high school, b) bringing high school students to the technical college to acquaint them with careers involving technology and with the school, c) providing tours of MATC and business with the sponsorship of a printing company, and d) courses for credit entitled "Careers in Computers," and Health Careers.

4) Improving technical education through integration of basic skills, stronger linkage with business and industry, and exposure to current technology through; a) awareness partnerships providing speakers in the classrooms, informational interviews and shadowing of employees on the job, b) Expo '91, a showcase of education and work opportunities, which drew 190 exhibitors.

5) Developing a model to provide education for employment culminating in employment of 50 students in technical jobs following high school completion through;

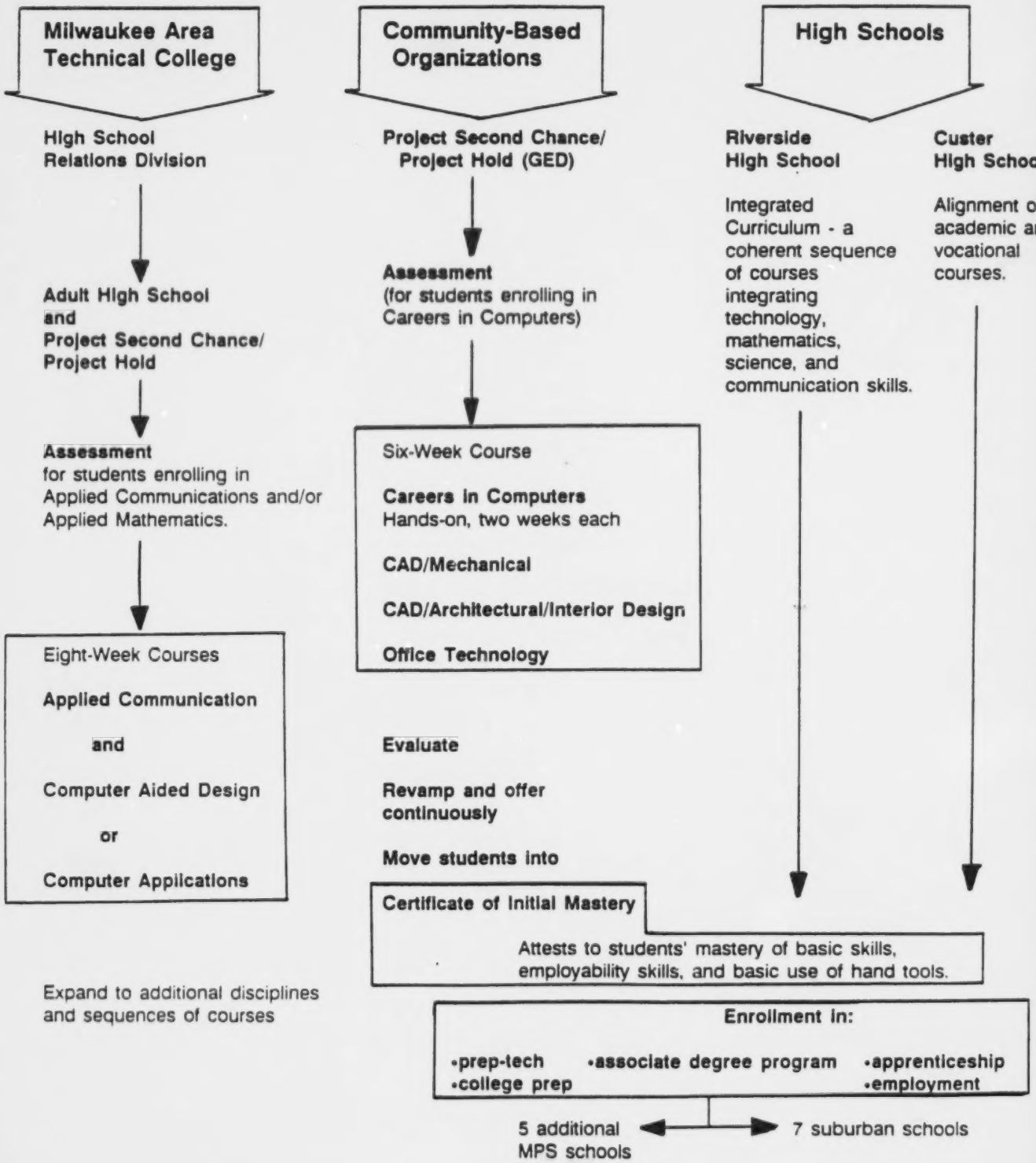
a) a referral system from the high school technology classes to openings in business, b) informational interviews and job shadowing, c) career information provided through presentations and interactive video.

The experiences of the TED program were disseminated to all teachers and administrators in both urban and suburban high schools in the metro-Milwaukee area through a quarterly newsletter. Presentations on using an integrated curriculum and applied academics were made by the teachers at several state conventions. Dissemination among the members of the state tech prep leadership group gave the program state-wide recognition. Presentations at national conventions, participation in the National Center for Research in Vocational Education and published articles provided national dissemination of the models.

CONCLUSION

It is essential that all students become aware and prepare for the technology used in today's world of work. This can only happen by bringing that technology into students' lives. All the model programs initiated under the TED program have succeeded in accomplishing that. The schools within MATC's boundaries see the value; some schools are starting, some continuing. A two-year program does not allow for institutionalization of a concept. Our challenge is to continue that awareness.

Technical Education Demonstration Program



TECHNICAL EDUCATION DEMONSTRATION PROGRAM

FINAL REPORT

DECEMBER, 1992

PROGRAM SUMMARY

On October 1, 1990, the United States Department of Education, Office of Vocational and Adult Education, Division of National Programs awarded a two-year grant totaling $886,231 to Milwaukee Area Technical College. The grant was written by Dr. Joseph Pellegrin, Dean of Continuing Education and Business Outreach and administered by Audrey Keyes. The purpose of the program was to promote and develop "cutting-edge" technical education programs for individuals who lack skills to enter training or employment in the city of Milwaukee.

The mission of the Technical Education Demonstration Program (TED) was to facilitate attainment of academic and technical skills and provide access to technical employment by students between the ages of 16 and 25 who have been traditionally excluded from technical careers because of lack of training. The objectives of the program included: 1) improving teacher capability, 2) interfacing math, science and communication skills with technical education, 3) increasing enrollment (specifically minority and "first generation work" students) in technical (particularly articulated) courses, 4) providing student exposure to technological disciplines thereby removing

fear of the unknown and influencing a career choice, 5) improving technical education through integration of basic skills, stronger linkage with business and industry, and exposure to current technology, and 6) developing a model to provide education for employment, culminating in employment of fifty students in technical jobs following high school completion.

Specific areas of focus in technology education include communication, construction, manufacturing, and transportation. Project staff worked closely with community-based organizations, the MATC High School Relations Division, the MATC Adult High School Partnership and High School Contract departments, the Technical and Industrial Division of MATC and its advisory committees as well as the Milwaukee Public Schools in an effort to facilitate their missions and build upon current efforts.

STAFFING

Staffing for the TED Project included: Dr. Joseph Pellegrin, Dean of Continuing Education and Business Outreach, Milwaukee Area Technical College, who served as Project Director and devoted 25% of his time to the project, and Audrey Keyes, Project Administrator, who allocated 100% of her time to the project. Two and one half positions were designated as Technical Education Coordinators with the responsibilities of recruitment, advanced standing, developing contacts with business and industry, public relations, and job development. One and one half positions were designated as Basic Skills Coordinators. Their duties included developing contacts with various community

based organizations, the implementation of survey courses to expose "nontraditional" students to technology, as well as tutoring and mentoring. Two positions were allocated as Milwaukee Public School Coordinators and a minimum of 50% of their time was spent housed in two Milwaukee Public high schools. These individuals were responsible for the development, revision and implementation of curriculum, the facilitation of teacher workshops and courses devoted to the integration of science, math and technology and staff assistance within the schools to implement the model. Finally, one position served as an Assessment Specialist, and it was this individual who provided via a special computerized vocational assessment package, work samples, hand tools and various equipment to assess students as well as career information to facilitate career decision making.

SUMMARY OF PROGRAM ACCOMPLISHMENTS

The following are the major goals of TED and description of how they were addressed.

1. IMPROVING TEACHER CAPABILITY

To meet a major objective, teacher training, the TED program sponsored a summer course for Metro-Milwaukee teachers. This course, "Integrated Academic and Technical Education: Teaching for a Technological Future," was designed to explore academic and technical curriculum integration through various classes taught by Milwaukee Area Technical College (MATC) Technical and Industrial instructors. Twenty-six educators, academic/technical

teachers, counselors and administrators enrolled in the first course in the summer of 1991. The following year, fifty-five educators enrolled. The course objectives included hands-on experience with the newest industrial technology such as electronics, computer-aided design (CAD), computer integrated manufacturing (CIM), computer numerical control (CNC), and structural engineering technology.

Participating educators received four (4) undergraduate credits from the University of Wisconsin-Milwaukee (UWM) in Summer, 1991. In Summer, 1992 participants were able to register for four (4) undergraduate credits from UWM or three (3) graduate credits from the University of Wisconsin - Stout (UWS). They could also opt to register for sixty-six DPI-CEU clock hours if they chose.

The course structure over four weeks of classes divided instruction into three parts: hands-on experience with the latest technology presented in the MATC labs, tours of business and industry correlated to the areas of study presented in the technology class work, and study and project development on integrating curriculum in the classroom. Prior to the start of the class, participants in the course were required to read The Cunning Hand, The Cultured Mind: Models for Integrating Vocational and Academic Education (Grubb, Davis, Lum, Plihal & Morgaine, 1991). Additional readings from current literature on integration of curriculum and class discussion followed.

In the classroom the initial sessions focused on different

learning styles, detailing the importance of and offering options for designing an integrated curriculum. The participants then formed multi-disciplinary teams to complete projects developing curricula for units of instruction designed to interweave the academic and the technical skills to prepare students for participation in the technology-oriented work place. The project was designed for a group in which each individual was responsible for his/her own subject area but had to integrate that subject into the whole curriculum unit. Each educator had to demonstrate his/her part whether independently taught or team taught.

A follow-up survey to identify the impact of the summer course experiences was part of the University of Wisconsin - Stout evaluation. The survey was distributed to 53 of the educators who took the course the summer of '92. Forty-nine percent of the participants responded and returned the survey to UW - Stout (see Appendix A). As a result of the class, teachers became more aware of technology careers and encouraged students to increase their awareness of MATC and jobs in industry. Counselors enrolled in the classes indicated that they made much use of the information received, that the class increased their awareness of jobs and MATC.

Teachers from Milwaukee Public Schools said they were more likely to use the applications learned than did suburban teachers, who also took the course. This is not surprising as the suburban schools are just starting to emulate the curriculum changes already taking place through the TED program in Milwaukee

schools.

In addition, evaluations for each subject area were provided to the teacher/students by the TED staff. They rated each class/instructor by Likert Scale evaluation; 1 (poor) through 10 (excellent). Class participants were asked to rate and comment on the value of what was presented in the technical field and its career potential for students, if the practical experience broadened their understanding of the technical field, the relevancy and usefulness of business/industry tours, and the effectiveness of the technical/industrial instructor. The participants were also asked questions regarding enjoyment of the course, particular frustrations encountered, and other areas that they would have preferred or found interesting. The ratings clearly show significantly above average satisfaction (8-10) on all of the above items.

The participants left the classes with the promise to instruct other members of their faculties in how to integrate curriculum and to attempt their projects at their schools. The actual utilization of learning is the greatest measure of learning. There seems to be consensus that the course would directly impact their teaching during the following semester. The following objectives and outcomes below show some indication of the course results.

Workshops were sponsored jointly by TED and personnel from the partnership program and the suburban high schools. These ranged from summer to after school programs to a full day

workshop with Dan Hull as the keynote speaker (see appendix B). Hull is a representative of CORD (Center for Occupational and Research Development), the organization which has developed a number of applied academic courses. Other activities in cooperation with the partnership program have included the Science Coalition Inservices, as well as inservice opportunities for Career teachers and Learning Coordinators focusing on Tech Prep.

2. A DEMONSTRATION MODEL INTERFACING MATH, SCIENCE AND COMMUNICATION SKILLS WITH TECHNICAL EDUCATION

The TED staff has done extensive research of curriculum materials for use in technology education programs. They have compiled a bibliography (see Appendix C) which was distributed to the "Integrating Academic and Technical Education" class and shared with the Wisconsin Department of Public Instruction. These materials formed the basis for the development of materials for the three model integrated programs initiated by the project.

Three Milwaukee Public Schools were targeted for an integrated curriculum in FY'91. A preliminary goal was to involve pilot site teachers in the summer school course. The sites were selected on the recommendation of the technical education curriculum coordinator in the spring of 1991, to give administration time to schedule students and teachers for the '91 Fall semester and then give the selected teachers time to prepare. It must be noted that the schools which are emulating the TED program have or are planning for an additional six months to a year additional lead time. Because of the short time span

of the grant (2 years), we did not have this luxury. In all cases the first step was to obtain the support of top administration. Presentations were made to teachers and counselors, and volunteers were solicited to participate in the program. Four of the participants in the summer integration course were involved in the pilot sites. From that point the three situations diverged. A description of the three programs and the second year expansion to additional programs follows.

Integration at a High School for At-Risk Students

The MATC Adult High School courses are somewhat unique. At-risk students are referred through the various funded projects for completion of their high school diplomas. Students, who are high school dropouts, range in age from 16 to 90. Each class lasts 110 minutes per day for 9 weeks. The integrated program was designed by the TED project administration within the confines of the structure of the school; two vocational classes with enrollment limits of 15 students feeding into the academic classes with limits of 30 students.

All the MATC teachers were told about the project and many volunteered to be part of the pilot program. One teacher who previously taught Applied Math, using the curriculum developed by the Center for Occupational Research and Development (CORD), elected to integrate his teaching with the teaching of instructors in Computer Assisted Design (CAD) and Welding. An Applied Communications instructor, using the curriculum developed by the Agency for Instructional Technology (AIT), became the

fourth member of the team.

The Academy model was used, with each class of students enrolling in three subjects, Math, Communication Skills and CAD or Welding, known as block rostering (Grubb, et al., 1991, p. 37). Time was allotted for the teachers to meet once per week to plan horizontal curricular alignment for the following week. This integrated program was offered prior to the summer teachers' class. Only one of the four-person instructional team participated in the summer class. He was, without question, the strongest advocate of the integrated curriculum, and again part of the team when the integrated curriculum was offered a second time.

The students were assigned to the integrated classes by outreach specialists for Project Hold and Second Chance, drop-out prevention programs for students 16 to 25. The profile of the students presented the major obstacle--two academic classes and one vocational class (six periods per day) was too much for most of them to handle and the dropout rate was astronomical. Fortunately, the second 9 weeks we could change the program to integrate only one academic class with the vocational offerings. Grubb, The Cunning Hand, The Cultured Mind, discusses the tendency to segregate potential dropouts as a limitation to the Academy model. These conditions already exist at MATC's high school; its students are potential dropouts.

Several additional support measures were taken for the second session. During the initial offering the students had

commented that they did not see any difference between their previous classes and the integrated classes. TED program personnel provided tutoring for students at the end of each class period. Small group work sessions were scheduled and students were encouraged to form study groups. Coherent sequences of courses were designed to enable students to move from Applied Communications and Computer Technology to Applied Math and Computer Technology II.

The courses have now been offered for six quarters. Teachers and students appear pleased and retention is higher than in other classes. The instructors have had to modify the curriculum, relying less on the "canned" course and more on their own materials. Integrated curriculum within the MATC Adult High School is currently institutionalized.

Integration at a Specialty School

At Custer High School, a Milwaukee Public School (MPS) with a construction specialty program, the administration took an even more active role than the other sites. Just before the program started, MPS was divided into six Service Delivery Areas (SDA's), each with its own superintendent. The superintendent of the Custer High School district (SDA) strongly supported offering an integrated curriculum and, to emphasize her support, wrote a request to the principal asking him to do everything possible to facilitate the program. After several meetings with TED personnel, the principal selected faculty to participate and the superintendent provided funds for coordination meetings. Tenth-

grade math, science, social studies and vocational teachers were selected. The assistant principal determined the easiest method of integration would be to align academic courses more closely to the technical courses (Grubb, 1991 this approach: described - p. 23). Each of the teachers outlined the general topics to be covered in their courses. The assistant principal then spent hours examining the curriculum to determine how each unit could be modified to incorporate activities from the vocational courses. He assumed responsibility for programming the students into the block of classes and scheduling the teachers for common preparation times. The success of this program is due to the efforts of this assistant principal more than anything else.

After the curriculum was presented to them, all of the teachers were enthusiastic about the opportunity to implement it. Three of the teachers enrolled in the summer course. This certainly added to the understanding of integration. An innovative math teacher adopted the curriculum for Applied Algebra, a superior course to the applied math taught elsewhere.

A TED facilitator was assigned full-time to the school. One of her roles was to relieve the staff involved in the integrated program of extra duties in order to provide common planning time. She also accompanied students to MATC and to occupational sites so they could learn about current industrial technology and explore technical careers. Because the same group of students were involved in the entire block of courses, they were able to

travel to other sites without missing a class. The students visited Harley-Davidson, Inc., a motorcycle manufacturing plant, and an apprenticeship fair sponsored by the unions. During the duration of the program, this coordinator addressed over 600 students about the viability of a post-secondary technical program.

As a result of the success at Custer High School, planning has started to provide for expansion of the program to the same group of students in their junior year. The 15 student class is much smaller than desirable for utmost utilization of teacher time, but this undoubtedly contributes to its success. There will be attempts to increase class size for fall of 1992. The integration of the academics and vocational classes will continue with next year's sophomores.

In order to continue the program beyond the termination of the TED program, Custer and MATC signed a partnership agreement (see Appendix D) delineating each party's responsibilities. The students involved in this program will not graduate from high school until June, 1993, so there is no indication whether they will choose to continue their schooling and/or elect a technical career. The MPS grant through the state Department of Public Instruction for tech prep is providing funds to continue the curriculum coordination and the vice principal is providing leadership.

Integration at a Comprehensive High School

Riverside University High School (MPS) is a high school for

the college-bound, with a manufacturing program to provide alternatives for neighborhood students and supplement the academic offerings. This school provided the third pilot site and appeared to have the greatest promise of success.

A group of teachers met prior to the funding of the TED program and devised a plan for integration. The TED funding provided a facilitator whose job would be to bring the resources of MATC to the school and assist in implementation of the teachers' plan. The area superintendent of this MPS district promised funding to allow the teachers time to plan and for remodeling so that the academic and technical courses could be taught in a cluster of rooms. The high school principal backed the plan and arranged for the initial meeting of the teachers.

Ninth grade students scheduled for pre-algebra, physical science, and a technology survey course were to participate in the program. This program would be exceptional: it was to be a cooperative venture between the University of Wisconsin-Milwaukee's pre-engineering program, MATC and Riverside High School. Students in the college track would be in the same classes as students in the tech prep program. Additional support in the form of contact with the university, MATC and businesses, and tutoring would be given to all the students. The TED program facilitator met with a number of families of potential students of the integrated classes to obtain their support for the pilot. Seventeen students were identified to enroll in the program.

In late August it appeared that the program was falling

apart. None of the teachers enrolled in the summer course. The area superintendents' (SDA) positions were eliminated and funding did not materialize. Despite the support of the principal, the assistant principal did not schedule the students previously identified into the classes. Another assistant principal in charge of teacher schedules failed to allow for a common preparation time as planned. And, to add to the difficulties, the vocational teacher who originally instigated the integrated curriculum received another assignment as a result of reduced enrollment at the school. What might have been an ideal situation quickly became disaster.

In the process, we learned many lessons: Even with very strong leadership from the top, every layer of administration must have devoted participants. A proposal by teachers may have their commitment, but implementation needs the involvement of everyone for scheduling to be successful. At least one teacher who is to be part of the integrated curriculum team should have the educational background offered by the summer course. A contract has now been developed to detail the commitment of the entire school.

The Riverside plan, certainly the most comprehensive integration program, is not dead. A small class was conducted and teachers' schedules were altered to allow for a common preparation period. The central office allocated funding to allow for an additional teacher to be assigned to the school to enable the flexibility in scheduling. The new vocational teacher

is learning about his role in the integrated classes. Upon reflection, perhaps the greatest long term benefit of this program was the gradual exposure of the school staff to technology and tech prep. There were a few teachers from this school enrolled in the '92 summer training course. The University of Wisconsin-Milwaukee, School of Engineering Gest program has now taken over the integrated curriculum, using materials developed during the TED project. At the end of the project, we are still getting calls from staff at Riverside, asking to interact with the technology teachers at MATC.

In addition to the integrated curriculum at Riverside, Custer, MATC Adult High School, and South Division, three MPS schools are attempting to initiate tech prep programs in the '92-'93 school year. Washington High School has a project in computer science. The teachers are working together to bring the technology into the science, math and English classrooms. Pulaski High School started in October, 1991, with a meeting of teachers to learn about opportunities in technology. Several teachers volunteered to participate in the TED program. After three planning meetings to assemble a team, it was discovered that the leader of the program was retiring and the technology teacher was being transferred to another school. In Spring, 1992, after a new team was assembled, we learned of another transfer. Finally, during the summer, the team was finalized and able to spend some time in curriculum development. An MATC coordinator is working with the team and they are integrating

curriculum and attempting to bring the principles of technology into the classroom. MPS is not supporting this program as it is not one of the four schools with the most disadvantaged population, so funding for curriculum development is coming from the state tech prep grant. Power Technology, physical science and math are the original subject areas being integrated. Early data suggest that attendance from this control group is substantially better than other classes using the traditional approach to these respective subjects.

Teachers at Washington High School have been working together since Summer, 1991, to integrate their curriculum. Despite the fact that Washington is a computer specialty school, there was no technology involved with their plans for integration. After hearing about the involvement of the TED program at other schools, they decided to incorporate the technology class in their plans. The principals' enthusiasm has provided the impetus for this. Currently they have a team of six teachers. There are 150 students enrolled in the program, with two classes of ninth graders and four classes of tenth graders. The design is slightly different than at the other schools; each class has three 12-week sessions with two subjects each session. Math and technology, reading and social studies, and English and science are paired. Teachers integrate curriculum, planning the project and there is formal collaboration over the total program. There are plans for an MATC teacher to work with the students and for the students to come to MATC to see technology in action.

There is no one best way of bringing technology to students. All of the programs are totally teacher-based; students involved with those teachers benefit greatly. Integrating a total program, as currently implemented at South Division High School, is the most costly both in dollars and teacher commitment. Weaving the technology into the academics, as they are doing at Custer, has the potential to have enduring, expansive effects as academic teachers become more familiar and comfortable with technology. Combining two classes, as adopted by MATC Adult High School and Washington High School, results in students learning more math and more technology. Our experience has taught us not to rely on individual teachers in a large system as there are too many variables affecting their remaining in a position long enough to institutionalize a curriculum.

3. & 4. INCREASING ENROLLMENT IN TECHNICAL (PARTICULARLY ARTICULATED) COURSES AND PROVIDING STUDENT EXPOSURE TO TECHNOLOGICAL DISCIPLINES

The activities related to these goals interfaced so closely that the results are being reported collectively. During the course of the project, many activities were initiated to expose students to technical careers and provide a smoother transition between secondary and postsecondary programs. Advanced standing agreements between Milwaukee Area Technical College and district high schools accounted for over 800 Advanced Standing certificates being awarded in 1991 and 1992 to Milwaukee Public high school students alone (see Appendix E). This indicated that 800 students were enrolled in courses in their high schools for

which they could receive advanced standing at MATC. TED staff facilitated 18 staff development and in-service programs involving 539 teachers and administrators. Staff also met with and/or made presentations to over 3,000 students and parents.

One component of TED involved an event called FOCUS ON YOUR FUTURE. This activity brought high school juniors and seniors to MATC to tour various technical and occupational areas as well as receive information regarding educational and employment trends. During the 1990-'91 school year 1,092 students attended the event, and for the 1991-'92 school year 990 students were in attendance (see Appendix F).

An indication of the success of this phase of the program is illustrated by the enrollment in printing courses at Hamilton High School. In fall of 1990 there were 75 students enrolled in the printing program. A TED Outreach Specialist spoke to freshman about the opportunities and diverse careers in printing. W. H. Brady, a local printing firm, paid the cost of bringing the students to MATC for advanced graphics training exposure and then on for a tour of their printing plant. The following year, after 210 students participated in the same technical career indoctrination, the enrollment in the printing program increased to 225. After another year of student exposure to printing careers and by September, 1992, 400 students were requesting entry into the printing specialty.

In an effort to impress students with the academic needs for technology careers, expose them to state-of-the-art technology,

and illustrate the integration of math, computer science and manufacturing technology, MATC's Technical and Industrial Division provided a traveling CIM (Computer Integrated Manufacturing) Cell to three schools. Teachers at the high schools were trained on the use of the cell during the summer prior to sending it to the schools. The teachers were then able to conduct demonstrations and involve students in the operation of the cell.

Students who were in educational programs through community based organizations (CBO's) also had the opportunity to participate in FOCUS ON YOUR FUTURE. There were several false starts with students dropping out of the class for lack of interest. After a survey of job opportunities linked to postsecondary education, the students were presented with an overview of specific jobs by representatives from various occupations. Finally, they were given a questionnaire to determine their educational interests. As a result of the survey, the TED project facilitated a technical survey course entitled "Careers in Computers" for these students (see Appendix G). Whereas in previous sections we had trouble retaining six or seven students, in these classes, the students arrive early to be certain to have their own computer and attendance has been 85 -90%.

In order to continue education about technical careers, a set of video laser disks were purchased through program funds. These disks are being used by counselors within the schools and show students opportunities in technical fields, job requirements and salaries.

5. IMPROVING TECHNICAL EDUCATION THROUGH INTEGRATION OF BASIC SKILLS, STRONGER LINKAGE WITH BUSINESS AND INDUSTRY, AND EXPOSURE TO CURRENT TECHNOLOGY

The TED staff responsible for business and industry contacts developed several models to expose students to current technology and employer expectations.

AWARENESS PARTNERSHIPS

After contacting over 200 local businesses, an "Awareness Partnership Proposal" was developed. This proposal (see Appendix H) seeks a commitment from MATC and the companies who choose to participate to develop or enhance the work ethic in targeted students as well as improve their basic academic skills. The goals of the program are as follows;

1) Impress upon students and teachers the importance and dignity of specific technical fields as career options, 2) Impress upon students the need to continue education beyond high school, and 3) Impress upon students the importance of learning and mastering basic employment skills.

Job development and shadowing activities were actively pursued by project staff. TED business outreach staff contacted 227 companies. Opportunities were offered to students in the areas of assessment, shadowing, informational interviews, and jobs. Seventy-five students actually participated in this phase of the program. The remarks made by business people in follow-up questionnaires indicated a range of reactions to the students. A sampling of the remarks were:

"A waste of time. The student seemed bored."

"We would gladly participate again. Tawna was not interested in this career, but she was attentive and pleasant."

"Carlos will be coming back to spend more time with us. He asked some good questions."

Contacts with business indicate that all employers emphasize the need for proficiency in reading, writing, speaking and **basic** math computations.

These figures do not reflect the printing tours previously mentioned or the use of the computerized machining unit in the high schools.

EXPO '91

In order to expose a large segment of the minority community to current technology, to develop a stronger link with business and to attempt to develop job opportunities for students, MATC co-sponsored a showcase with the theme "Working Together to Build a Better Milwaukee." Other sponsors were the City of Milwaukee, the Milwaukee Community Journal (a weekly, black newspaper), the Milwaukee Urban League and the University of Wisconsin-Milwaukee. MATC and other area colleges and businesses provided workshops ranging from how to fill out a job application to Dress for Success to The Workplace of the 21st Century. This massive community effort drew 190 exhibitors, demonstrating their equipment and preparation needs for future jobs. Over 27,000 people from the community attended.

There were 48 bus loads of students from local high and middle schools brought to the event. Plans were for part of the

students to select and attend workshops while the remainder of the students circulated among the demonstration booths. There were just too many young people in too small an area in too short a time. Many students never took advantage of the workshops. Expo '92, again highlighting the importance of education and an educated workforce, is not attempting to draw as many students.

6. DEVELOPING A MODEL TO PROVIDE EDUCATION FOR EMPLOYMENT, CULMINATING IN EMPLOYMENT OF 50 STUDENTS IN TECHNICAL JOBS FOLLOWING HIGH SCHOOL COMPLETION

This was perhaps the most challenging goal for the project to accomplish. While the foundation for attaining employment was certainly laid by the project, the actual employment statistics fell somewhat short of expectations. A total of 129 students were referred for employment. However, only 39 students were actually hired by local businesses. Employers prefer to hire unemployed adults over inexperienced youth. Considering the local economy as well as employment statistics for minority youth in the city of Milwaukee, this is not considered a failed attempt.

Table 1
Youth Unemployment in the City of Milwaukee 1991

AGE% UNEMPLOYMENT	
16-18	27.6%
20-24	33.8%
BLACK YOUTH	
16-19	36.2%
20-24	33.8%

HISPANIC
16-19 52%
20-24 8.2%

Source: Current Population Surveys, U.S. Dept. of Commerce

DISSEMINATION

The TED staff compiled a quarterly newsletter entitled TED-LINES (see Appendix I). This publication was disseminated to all MATC staff and administration, participating high schools, secondary school administrators, Wisconsin Department of Public Instruction staff, as well as selected staff at the Wisconsin Board of Vocational, Technical and Adult Education. The flyer described accomplishments, opportunities for continuing education for teachers and the results of various curricula reforms.

In addition to TED-LINES, the project has responded to numerous requests for information from a variety of sources. Information regarding the accomplishments of TED as well as strategies for implementation have been fowarded to Tennessee, Colorado, Illinois, Missouri, and California. Presentations on using an integrated curriculum and applied academics were made by the teachers at Custer High School, Riverside High School and MATC's Adult High School at several state conventions. This and dissemination among the members of the state tech prep leadership group by Audrey Keyes gave the program state-wide recognition.

Nationally, Joe Pellegrin, Project Director, and Audrey Keyes, Project Administrator, made numerous presentations and published several articles about the TED efforts. The TED

concepts were presented at the National Council for Research Development in Washington D.C. in December, 1992, the Multicultural Youth Conference in October, 1992, the Technology and Teacher Education convention in Houston, Texas in March, 1992, the American Vocational Association convention in Los Angeles in December, 1991, and at the National Tech Prep Conference, and the Iowa Vocational Association Conference in January, 1991.

The South Division High School (MPS)/MATC program in manufacturing, one of the second-year expansion programs, was selected by the National Center for Research in Vocational Education (NCRVE) for a summer program/demonstration of tech prep. Four high school teachers, a counselor and an administrator from MPS and three teachers, a student services representative and Audrey Keyes, TED administrator, attended a one week summer workshop, developing integrated curriculum. This program will be disseminated nationwide through NCRVE.

Articles have appeared in a variety of community newspapers (see Appendix J).

CONCLUSIONS AND RECOMMENDATIONS

The Technology Education Demonstration program was funded at a most propitious time for the community. The program fostered technology education within the inner city when it might have been lost among budget cuts and emphasis on baccalaureate degree service occupations. Change is always painful and within a large system such as MPS with its 98,000 students and MATC, with its 70,000 students, it must be measured in bits and pieces. The

bits and pieces are impressive. Individual strategies for success in preparation for technical careers show great strength.

As previously mentioned, it is essential that there is commitment of top administration to any program. It might be noted that it is essential not only to get the commitment of the named leaders but also the commitment of the ex-officio network. All schools are continuing the program. The schools where the program is the strongest are schools where the MPS system has agreed to place substantial dollars at the disposal of the teachers to provide for release time, funds for writing curriculum over summers, and support and money to spend time calling on business to get their involvement.

The interaction of various institutions, i.e., the high school, technical college, and baccalaureate degree institution, needs to be spelled out or expectations may become unrealistic. The same is true of expectations of and from students. While there is a danger in too much paper work, all parties must have a clear definition of their roles in bringing knowledge of technology to youth, be it the student going for an informational interview or the teacher's expectations of a technology teacher or business representative appearing before a class.

Each school needs to continue to develop the method of implementing a similar program to suit their individual needs and personnel. There is a great deal of hope that as teachers see their peers succeeding in reaching and retaining students, they will wish to emulate the TED program. No one way proved best

although weaving technology through academics, both by offering applied academic courses and correlation of subject matter, seemed to be easiest and therefore most enduring. It also seemed to have the least impact on the students.

The results of applied academics, integrated curriculum, and exposure to the workplace indicate that attendance and performance improve as a result. Sustained benefits for students will come primarily as a result of classroom teaching which recognizes that different students learn in different ways. This program probably did not espouse any ideas not currently implemented by outstanding teachers. What we attempted to do was put the tools for becoming outstanding teachers at the disposal of all teachers.

As mentioned in the Economic Conference prior to Bill Clinton's inauguration, teachers and counselors are sadly lacking in knowledge of technology and as a result are not able to bring this information to students. Any effort to incorporate technology into our education is a step forward. No one effort is sufficient.

A two-year program does not allow enough time to accomplish a great deal, certainly not in the best possible way. Because of a late start-up in hiring personnel due to the intricacies of a large institution's personnel policies, almost four months were lost at the beginning of the program. This resulted in a urgency to get schools involved. Much more planning time is necessary to allow educators to learn about concepts prior to

being asked to espouse an idea. The second year start-ups seemed to be much more successful.

EVALUATION

On-going evaluation of the TED program was provided by an advisory committee comprised of MPS and suburban administrators, MATC administrators, and business representatives (see Appendix K). They received quarterly reports on the progress toward meeting the goals of TED. This committee also made suggestions for continued improvement with emphasis on outreach into the community.

A third party independent evaluation was contracted for by the project. The evaluation was conducted by Dr. Orville Nelson, Director of the Center for Vocational, Technical and Adult Education at the University of Wisconsin - Stout, and Dr. Howard Lee, Dean, School of Industry and Technology, U.W. - Stout. The evaluation in its entirety is included in the appendices (see Appendix A). However, general findings and impressions include the following:

1. The TED project expanded MATC's interaction with the primary and secondary tiers of high schools. Teachers indicate that "trust" had been developed as a result of this project.
2. The project was able to bring together a number of institutions, organizations, support agencies, employees and groups to address basic academic and technical skills and employment needs of minority students.
3. MATC developed and implemented an integration of several

areas in their Adult High School. The integration model developed as a result of this project was implemented at MATC.

4. MATC has an important role to play in developing Tech Prep programs with Milwaukee and suburban high schools.

5. MATC assembled an energetic, dedicated, and professional staff to address the project.

Continuation of a program that has not had time to be institutionalized is always a problem. Educational systems do not move rapidly. All of the educators and students reached by the TED program benefitted. Now the challenge is to continue that awareness of technology and to make it part of everyone's life.

PUBLICATIONS

"Technology, Imperative for the 21st Century." Technology and Teacher Education, Winter, 1992.

SPEECHES

"Technical Education Demonstration Program," American Vocational Association, December, 1991.

"Technology Education & Tech Prep - The Future of Voc. Ed." Iowa Vocational Association, January, 1991.

APPENDICES

APPENDIX A

Nelson and Associates
920 River Heights Road
Menomonie, WI 54751

Home: (715) 235-7631
Office: (715) 232-1382

November 30, 1992

Ms. Audrey Keyes
Project Director
Technical Education Development Project
Milwaukee Area Technical College
700 West State Street
Milwaukee, WI 53233

Dear Audrey:

Attached is our completed Third Party Evaluation Report. The report is based on interviews with project staff and personnel from cooperating schools, surveys of summer session teachers, and examination of records and reports.

We cannot help but be impressed with the scope and significance of the TED project. We are convinced that the articulation developed with secondary schools along with the integration of content will continue. You have assembled a very qualified staff and provided leadership to make this project a success.

Please feel free to contact us if you have any questions.

Sincerely,

Howard D. Lee

Orville Nelson

TECHNICAL EDUCATION DEMONSTRATION PROJECT

Third Party Evaluation

Submitted by

Howard Lee
Orville Nelson

Menomonie, Wisconsin
October, 1992

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TECHNICAL EDUCATION DEMONSTRATION PROJECT

The following findings are based on two on-site visitations to MATC and cooperating schools, interviews with project staff, review of materials provided, and follow-up with workshop teachers.

General Findings

1. The TED project expanded MATC's interaction with the primary and secondary tiers of high schools. Teachers indicate that "trust" had been developed as a result of this project.

2. The project was able to bring together a number of institutions, organizations, support agencies, employees and groups to address basic academic and technical skills and employment needs of minority students.

3. MATC developed and implemented an integration of several areas in their Adult High School. The integration model developed as a result of this project was implemented at MATC.

4. MATC has an important role to play in developing Tech Prep programs with Milwaukee and suburban high schools.

5. MATC assembled an energetic, dedicated, and professional staff to address the project.

PROJECT OBJECTIVES AND FINDINGS:

1a. A demonstration model for retraining 50 high school classroom teachers will be developed.

Accomplished: Records of enrollment during summer, 1991 and 1992, indicate a total of 82 (1991-26, 1992-56) teachers were trained. Several MATC staff members and outside consultants planned and conducted the workshop to ensure academic integration with several technical areas. The workshops were well publicized and attended. Evaluations by participating teachers indicate that the training sessions were very worthwhile and that many had changed and implemented curriculum upon returning to their school.

Table 1, Participants' Position, shows the mix of positions held by educators in the workshop during summer 1992. Table 2, Participants' Evaluation of Activities in Course, indicates that participants felt the activities were very good. Table 3, Comparison of Evaluation Ratings by Position, shows there was generally little difference in opinions among the participants by position. Appendix A, Follow-Up of Educators Who Attended MATC 1992 Summer Course is a complete follow-up study of 1992 participants. Their comments about the summer course are very positive.

Table 1
Participants' Position

Position	N	%
Academic Teacher	15	48
Vocational Teacher	10	32
Administrator	2	6
Counselor	5	16
Other	3	10
Totals N=35	35	112

*Note: These totals equal more than 31 and 100% respectively, because of multiple responses.

Table 2
Participants' Evaluation of Activities in Course

Activities	Mean	Std Dev
1. Orientation to the discipline/ technical area	3.9	.8
2. Lab activities--hands-on experiences with technology	4.4	.9
3. Industry tour(s)	3.8	.8
4. Developing the curriculum unit	3.4	.7
5. Opportunity to apply academic skills to workplace tasks	3.7	.6
6. Overall evaluation of the course	4.0	.6

*Statistics are based on the following response scale:

1 = Very Poor
2 = Fair
3 = Good
4 = Very Good
5 = Excellent

Table 3
Comparison of Evaluation Ratings by Position

Position	N	Mean	STD Dev
Academic Teacher	15	4.1	.8
Vocational Teacher	10	4.1	.6
Administrator	2	4.0	.0
Counselor	5	4.0	.0
Other	3	3.7	1.5

1b. **A demonstration model for interfacing science, mathematics and communication skills with technical education will be developed.**

Accomplished: Project staff developed a model to interface science, mathematics and communication skills with technical education at both the secondary level and postsecondary level. The model utilizes the expertise of subject matter experts in a fashion which results in joint planning periods for curriculum development which interfaces all areas. For example, in South Division High School, teachers were observed teaching content which was the result of joint planning. In a unit on plastics, the science teacher was dealing with chemical make up and properties of the plastic being studied. The math instructor dealt with calculations for the part to be cut and formed while the communication teacher dealt with plastic terms and directions to accompany the finished project. The technology teacher dealt with jigs and fixtures for forming the plastic into a picture holder which the class would mass produce.

1c. **Fifty "first generation work" high school 11th and 12th graders will enroll in technology education courses leading to advance placement in MATC technical education programs in advanced construction, manufacturing, or transportation.**

Accomplished: Advance standing agreement records examined indicate the number of certificates awarded to students in 1991 were 1,755 and 941 in 1992. The 2,696 total of the two years reflect the actual numbers enrolled in courses in their home school which count as advanced placement at MATC. Staff members worked hard to establish articulation agreements with area high schools for advanced placement. Records indicate that MATC now has 48 articulation agreements in place. MATC is continuing to work on articulation agreements with three more to be finalized by the end of this calendar year.

1d. **One hundred minority students new to technology education will be enrolled in secondary technical education programs leading to associate degrees. During the school year, staff will meet with students and parents to monitor their perception of the success of the program and offer supplementary instruction to the students. They will also speak to incoming students and their parents to enroll them in classes for the following year, both in existing programs and expansion programs. Parents' nights are scheduled into March, 1992.**

Accomplished: Records from area schools which have advanced standing agreements in place with MATC show that there are presently 211 minority students enrolled in technical courses. Upon completion of their high school programs, these minority students can transfer to MATC associate degree programs.

Staff met with and/or made presentations to over 3,000 students and parents. An example of this result is 97 advanced standing certificates awarded to students from two high schools for Tech Math articulation for 1991 and 1992. Of the lists included, 48 are still in high school, 4 currently attend MATC, an additional 4 have applied, and 40 have made other plans and/or were unable to be tracked.

1e. **Fifty students will be placed in technical jobs following high school completion at the end of the first year of the project.**

Accomplished to the degree possible: Examined records show that 71 students were referred in the 1991 and 58 students were referred in 1992 for a total of 129. Only 39 students were actually hired by local business and industry.

Job development and shadowing activities were actively pursued by project staff. Two hundred twenty-seven companies were contacted by TED business outreach staff. Opportunities were offered to students in the areas of assessment, shadowing, informational interviews, and jobs. Milwaukee businesses and industry have not been recession proof (see Table 4 below).

Table 4
Youth Unemployment in the City of Milwaukee 1991

Age	% Unemployment
16-19	27.6%
20-24	12.8%
Black Youth	
16-19	36.2
20-24	33.8
Hispanic	
16-19	52
20-24	8.2

Source: Current Population Surveys, U.S. Department of Commerce

Reasons cited for not placing students in jobs included the current job outlook in the city of Milwaukee. From the students' point of view, those families who were receiving some type of assistance would be penalized for additional income brought into the household which would not offset the amount of reduced benefits.

A good faith effort was demonstrated by TED project staff to fulfill this objective. The project had no way of anticipating the downward trend in the economy.

1f. **A demonstration model for secondary schools and technical colleges designed to encourage underachieving and disenfranchised individuals to enter technical education will be developed. A working demonstration model including recruitment techniques, and training and retention of "at-risk" individuals for the entrance into technical education programs will be developed.**

Accomplished: The model developed by this project encourages school districts to bring academic areas such as communications, mathematics, and science and technical areas together to target minority, disenfranchised youth and underachieving youth to enter technical course work. The working model incorporates field trips from area schools to MATC, secondary school visits to business and industry, guest speakers, special workshops for community-based

organizations, training for participating school teachers and guidance counselors, and in-servicing for appropriate support staff.

1g. A demonstration model designed to remove fear from underachieving, nontraditional students who desire to enter technical education will be developed.

Accomplished: The model developed by MATC incorporates special workshops to expose targeted youth to technical education. The model also incorporates shadowing experiences in local business and industry for minority, underachieving and nontraditional students. Project staff either directly conducted or coordinated over 30 workshops for students and coordinated shadowing experiences for over 45 students. Records show that more than 2,748 students, of which 1,241 were minority, participated in these activities throughout the TED project.

1h. A demonstration model for underprivileged secondary, minority "at-risk" young students to provide easy entry into technical vocational education in the Metropolitan Milwaukee area will be developed.

Accomplished: This objective was built into the model developed by the TED project and accomplished through a variety of activities. See objectives 1b, 1c, 1d, 1e, 1f, and 1g.

1i. A demonstration model containing a written technical curriculum for linking Milwaukee Area Technical College's technical education programs with the private sector business and industrial community will be developed.

Accomplished: Project staff developed an "Awareness Partnership Proposal" which solicits a commitment from business and industry and directs MATC to:

- Impress upon students and teachers the importance and dignity of the manufacturing trades as career options.
- Impress upon students the need to continue education beyond high school.
- Impress upon students the importance of learning and mastering basic employment skills.
- Develop a strong partnership/model among company and participating schools that may serve as a guide for other companies and schools.

Participating companies and MATC strategies are identified in the document which both MATC and the company sign.

1j. A demonstration model for underachieving secondary students, young adults, and at-risk minority students, specifically "black male youth" to provide lifelong learning habits, problem-solving skills, self-confidence, and positive work habits will be developed.

Accomplished: The model developed by MATC incorporates the appropriate participation by teachers, guidance counselors and academic skill support areas to address this objective.

1k. **An improved transition technical education program for students moving from secondary school technical education programs to college technical education will be developed.**

Accomplished: Specific articulation plans with MATC and area schools provide improved transition of students. Informal written agreements have been formalized and approved by both parties.

1l. **Fifty underachieving individuals in the Metro-Milwaukee area will be employed in the technical areas by becoming competent in the safe use of hand tools and manufacturing procedures, and becoming academically competent.**

Accomplished: Examined records and interviews with project staff indicate that 149 students were enrolled in integrated courses during the project period. Eighty three completed the courses. TED staff clearly facilitated the integrated courses.

1m. **Fifty students will complete a secondary vocational program provided by MATC's Adult High School, High School Contract and Milwaukee Public Schools leading to advanced placement in one of MATC's technical education programs.**

Accomplished: Records examined show that 2,696 high school students in MATC's Adult High School and Milwaukee Public Schools qualify for advanced standing in MATC's technical education program. Many students are either entering or are in the pipe line and will enroll in MATC.

Recommendations

1. This project has experienced success. MATC should consider following up this project by evaluating the support efforts in order to make necessary adjustments in the model.

2. MATC should follow up students placed in business and industry as a result of this project. Business and industry should also be followed up to determine what competencies are not being addressed by TED.

3. MATC should continue to work with and support work with Milwaukee and suburban high schools. There is tremendous interaction begun, which needs to continue.

4. MATC should continue to offer summer workshops which bring teachers from various disciplines to learn about technical areas.

5. MATC should consider offering a stage two summer teachers workshop to address the depth issues of technical education, such as other technical areas like health; share curriculum development; and write curriculum with MATC staff. Furthermore, technological updating needs to continue.

Appendix A

Follow-Up Educators Who Attended MATC 1992 Summer Course

Follow-Up Survey of Educators Who Participated In MATC's Integrating Academics and Technology Course During the Summer of 1992

Introduction

Milwaukee Area Technical College (MATC) has offered summer courses for high school educators for several years. These courses have enrolled teachers from the areas of math, science, English and vocational education. Some counselors and administrators also enrolled. During the 1992 summer program, educators from Milwaukee Public Schools (MPS) and suburban school systems (SSS) were enrolled.

This report presents a summary of the results from a survey conducted with a sample of the educators who participated in 1992.

Purpose

The purpose of this study was to identify the impacts of the summer course experiences on the participants' educational activities. In addition, the survey asked for input on topics that should be included in future summer courses and workshops.

Process

The survey form was designed to assess the impacts of the summer course experiences on the participants' post-course education decisions and activities. A copy is attached. Demographic items were included to provide an opportunity to run more specific analyses on the data.

In October, 1992, a sample of participants in the 1992 summer course sessions received the survey. Of the fifty-three people contacted by mail, twenty-six (49.1%) responded. The results are reported in the next section.

Results

Applications of the summer course experiences are reported in Tables 1 and 2. Table 1 provides a breakout by the educators' assignments. The sub-groups comprised of academic teachers, vocational teachers, and counselors have the most respondents. (See Table 1) Counselors did not respond to the items on teaching. Counselors reported that they made much use of the information received to encourage students to take more math, science and vocational courses; become more aware of jobs in business and industry; and to consider programs at MATC. Academic and vocational teachers noted that they had made some changes in content, learning

activities, and the amount of practical content in their courses. Both groups reported little to some use of working with other teachers to integrate academic and vocational competencies. Although both groups indicated some to much use, vocational teachers were more likely to encourage students to take more math, science and vocational courses; become more aware of business and industry; and to consider programs at MATC.

A summary by Milwaukee Public School (MPS) participants and Suburban School Systems (SSS) is given in Table 2. Participants from the MPS are more likely to indicate frequent use of the applications listed. Two of the largest differences are associated with encouraging students to take more vocational courses, and consider programs at MATC. In addition, educators in the suburban school systems reported little use of activities to integrate subject areas.

Most of the educators participating in the summer course indicated that they had made additional contacts with MATC staff. (See Table 3) MATC counselors and technical teachers were the most likely to have been contacted. Approximately one-third of the respondents reported they had contacted them. Educators from the MPS had more contacts than those from the suburban schools.

In summary, educators in the MPS reported more impacts on their work and more follow-up contact than the educators from the suburban school systems. This may be the result of the MPS being involved with the project longer and having more contact with MATC.

A summary of the positions held by the survey respondents is given in Table 4. Academic teachers was the largest group (44%) and counselors were the next largest group (24%).

A list of the survey respondents' comments follows. Participants mentioned that the summer course made them more aware of the needs of business and industry. They also noted that they became more aware of MATC's offerings and were more willing to suggest to students that they should enroll at MATC. Their comments also indicated that they were more aware of the need for integration and how to integrate academic and vocational content.

Time was the big barrier to doing more integration in local schools. Also, many of those responding would like to have more examples of integrated curriculums.

The educators surveyed were also asked to identify topics for future summer courses. Their suggestions are given on the pages that follow. In general, they wanted more occupational areas covered.

TABLE 1

Follow-Up Survey of Educators Who Participated in the Summer Workshop

APPLICATION MADE	USE AT*	VT	SNT	Ad	C	Oth
2. Changed the content of some of my course(s)	2.9#	2.4	3.0	3.0	-	3.0
3. Added more practical examples to my course(s)	3.6	3.4	3.0	4.0	-	3.0
4. Worked with teachers in other subject-matter areas to integrate basic skills and vocational education content	2.6	2.6	3.0	5.0	-	3.0
5. Changed some of the learning activities I use in my course(s)	3.2	3.2	4.0	3.0	-	3.5
6. Encouraged students to take more math and science	3.8	4.4	3.0	4.0	4.5	2.0
7. Encouraged students to take more vocational education courses	3.6	4.8	4.0	4.0	4.3	3.5
8. Encouraged students to become more aware of the technology and jobs in business and industry	3.9	4.6	4.0	5.0	4.3	3.5
9. Encouraged more students to consider programs at MATC	3.6	4.0	4.0	4.0	4.0	2.5
10. I have visited companies to expand my knowledge of business and industry	1.9	3.3	4.0	4.0	2.8	3.5
12. Other-Six Responses: Setting up industry tours, Visits to MATC, Working with teams to integrate content.						
13. Other- Two Responses: Great speaker from industry, Career information for 8th graders.						
NUMBER@	11	5	1	1	6	2

*AT=Academic Teacher
VT=Vocational Teacher
SNT=Special Needs Teacher
Ad=Administrator
C=Counselor
Oth=Other

#Mean response based on the following scale:

N=1=Not Done
L=2=Little Use
S=3=Some Use
M=4=Much Use
E=5=Extensive Use

@NOTE: Some respondents checked more than one job title.

TABLE 2

Analysis of Educator Responses by School System

APPLICATION MADE	RESULTS FOR MPS#	SSS	OTHER	TOTAL
2. Changed the content of some of my course(s)	3.0@	2.6	2.5	2.8
3. Added more practical examples to my course(s)	3.8	3.3	2.5	3.5
4. Worked with teachers in other subject-matter areas to integrate basic skills and vocational education content	3.1	2.2	2.5	2.7
5. Changed some of the learning activities I use in my course(s)	3.5	3.0	2.5	3.2
6. Encouraged students to take more math and science	4.1	4.0	2.5	4.0
7. Encouraged students to take more vocational education courses	4.4	3.5	3.5	4.0
8. Encouraged students to become more aware of the technology and jobs in business and industry	4.4	3.9	3.5	4.2
9. Encouraged more students to consider programs at MATC	4.1	3.0	3.5	3.7
10. I have visited companies to expand my knowledge of business and industry	3.0	2.0	2.0	2.6
12. Other: Number of Responses	4	2	0	6
13. Other-Number of Responses	0	2	0	2
NUMBER	15	8	2	25

#MPS=Milwaukee Public School System
SSS=Suburban School System
OTHERS=Both Were MATC Staff

@Based on the Following Response Scale:

N=1=Not Done
L=2=Little Use
S=3=Some Use
M=4=Much Use
E=5=Extensive Use

TABLE 3

Educators Additional Contacts With MATC Staff After the Summer Workshop

MATC STAFF	RESULTS MPS N	MPS %	SSS N	SSS %	TOTAL N	TOTAL %
(1) Administrators	4	27	0	0	4	16
(2) Counselors	8	53	0	0	8	32
(3) General Education Teachers	3	20	1	13	5	20
(4) Technical Teachers	5	33	1	13	8	32
(5) TED Project Staff	5	33	1	13	6	24
(6) Other	2	13	2	25	4	16
OMIT	2	13	4	50	6	24
NUMBER	15		8		25	

TABLE 4

Respondents' Position's

POSITION	RESULTS MPS N	MPS %	SSS N	SSS %	OTHER N	OTHER %	TOTAL N	TOTAL %
(1) Academic Teacher	5	33	5	63	1	50	11	44
(2) Vocational Teacher	3	20	1	13	1	50	5	20
(3) Special Needs Teacher	1	7	0	0	0	0	1	4
(4) Administrator	1	7	0	0	0	0	1	4
(5) Counselor	5	33	1	13	0	0	6	24
(6) Other	1	7	1	13	0	0	2	8
OMIT	0	0	0	0	0	0	0	0
NUMBER	15		8		2		25	

Integrating Academics and Technology Course
Survey Responses

What were the major impacts or outcomes of your participation in the summer course/workshop at MATC?

- Reinforces my belief in integration.
- Realized need for more two-year graduates.
- More awareness of MATC's offerings.
- The workshop was informative. I will encourage more students to enroll in vocational programs and apprenticeships.
- It made me aware of the use of mathematics in technical occupations.
- Production of specific curriculum. My comprehension of the new sciences.
- Strengthening of firm beliefs that integrating courses increase academic performance.
- Raised awareness of future needs and opportunities.
- Became personally aware of the wide variety of technological offerings at MATC and its related student services.
- I became more aware of the relationship between technical and academic education.
- I was able to share with colleagues and students a new perspective on technology education.
- Cannot be done at my school (because of the lack of implementation).
- More aware of technical competencies needed in industry.
- It was very enjoyable to see the similarities and differences in the technical areas.
- I became much more aware of the technologies now taking place and being used in industry. Also, I was made more aware of what students need to enter these fields.
- Learning a variety of methods to integrate academics and tech areas.
- Learned quite a few applications as an academic teacher.
- I gained appreciation for technical jobs.
- The capacity to share and utilize ideas of others.
- On-hand experiences made me feel confident and I will pass them on.
- I was impressed with quality of instruction and the variety of courses. They gave me good examples to cite and made me more willing to promote MATC.
- Opened my eyes to the possible career choices available through MATC and gave me a better understanding and outlook of vocational education.
- Integrating curriculums of different disciplines.

What additional assistance do you need in order to integrate academic and vocational competencies?

- Time.
- Continued contact with MATC contact people.
- More information from CVTAE, WTEA, ITEA, AVA.
- Classroom teachers involved in the workshop.
- Opportunities and time to plan and implement integration.
- I have made personal contacts with several MATC instructors to have them visit my classes, but a list of names and phone numbers of MATC personnel who would be available as speakers would be helpful.
- More inservices for the local schools.
- Examples of successful programs.
- Ring the administrators door bell (Wake them up).
- Structure at MATC to integrate academics and technical skills.
- Teachers that don't think vocational education is for those who are not going to college. I believe that college is for those who cannot make it in the trades.

What additional assistance do you need in order to integrate academic and vocational competencies? Continued.

- Since I am not a classroom teacher this does not directly apply.
- None-I need to take more vocational education classes myself.
- Time and schedule modifications.
- Not much needed - time is the big obstacle. We (high school staff) have little time to coordinate and plan activities.
- We're working together.
- More exposure to ways of integrating all academic areas.
- Time - sharing with other teachers.
- A directory of teachers who are available for team teaching and their fields. A list of teachers and others who have taken this course.
- Money, more ideas, more courses on the subject.

MATC is considering offering an advanced technical course for high school teachers. What content and activities do you think should be included in this course?

- Courses not offered in elective options at their regular school.
- Stress needs of high school students to be hirable-not teachers learning technical skills.
- Similar to what has been already taught.
- Exposure to occupations not covered in the first course.
- Tie U.S. History into surveying, computers, etc.
- Include nursing area and dental also. I have students who inquire and I know MATC has an excellent facility.
- Less detail and more exposure.
- (1) A field trip of the MATC campus to focus first hand on the technology, training programs and job possibilities for trainees for each specialty offered; (2) a presentation on the special programs available for low income minority students-probably available from high school counselors, but often doesn't filter down to classroom teachers who may be advising students.
- How to integrate. There was no discussion on how to integrate material. The material was given with very little application into regular classes.
- More hands-on experiences.
- Direction on specifically implementing the knowledge gained into the classroom.
- Robotics.
- Print, drafting, electronics, machine building, construction, auto, metal fabrication, and computer science.
- Getting into more areas would be excellent. Allowing people to take the course again if they would be exposed to more would be of great value to me.
- Plumbing and electrical.
- More business tours and hands-on activities. Pair teachers at same schools for integration of curriculum.
- Practical ideas with little additional equipment.
- Computers.
- More surveying, printing and electronics. Show computer use - maybe train high school teachers to be more computer literate.
- Hands-on experience in the labs. Team work on class plans with others in the class.
- CAM, Civil Engineering, Mechanical Engineering, Electrical Engineering, CADD, Robotics.

9/29/92

INTEGRATING ACADEMICS AND TECHNOLOGY
COURSE SURVEY

DIRECTIONS: The purpose of this survey is to identify the impacts of the summer course/workshop you participated at the Milwaukee Area Technical College(MATC). Please respond to the following questions.

1. Which of the following best describes your position in your school district?

____(1) Academic Teacher (Complete all items)
____(2) Vocational Teacher (Complete all items)
____(3) Special Needs Teacher (Complete all items)
____(4) Administrator (Complete all items)
____(5) Counselor (You may start with item 6)
____(6) Other (Complete all items)_____

2-14. How have you used the information and competencies acquired in the summer course at MATC? Several applications are listed below. You may add others at the end of the list. Use the following responses.

N=1=Not Done
L=2=Little Use
S=3=Some Use
M=4=Much Use
E=5=Extensive Use

Application Made	USE N 1	L 2	S 3	M 4	E 5
2. Changed the content of some of my course(s). .	1	2	3	4	5
3. Added more practical examples to my course(s).	1	2	3	4	5
4. Worked with teachers in other subject-matter areas to integrate basic skills and vocational education content.	1	2	3	4	5
5. Changed some of the learning activities I use in my course(s).	1	2	3	4	5
6. Encouraged students to take more math and science.	1	2	3	4	5
7. Encouraged students to take more vocational education courses.	1	2	3	4	5
8. Encouraged students to become more aware of the technology and jobs in business and industry .	1	2	3	4	5
9. Encouraged more students to consider programs at MATC.	1	2	3	4	5

. . . over . . .

Application Made	USE				
	N	L	S	M	E
	1	2	3	4	5
10. I have visited companies to expand my knowledge of business and industry	1	2	3	4	5
12. Other_____	1	2	3	4	5
13. Other_____	1	2	3	4	5
14. Other_____	1	2	3	4	5

15. What additional contacts have you had with MATC staff since you completed the summer course/workshop? Check all that apply.

____(1) Administrators
____(2) Counselors
____(3) General Education Teachers
____(4) Technical Teachers
____(5) TED Project Staff
____(6) Other_____

16. In what school system do you work?

____(1) Milwaukee Public Schools
____(2) Suburban School System
____(3) Other_____

17. What were the major impacts or outcomes of your participation in the summer course/workshop at MATC?

18. What additional assistance do you need in order to integrate academic and vocational competencies?

19. MATC is considering offering an advanced technical course for high school teachers. What content and activities do you think should be included in this course?

Thank you. Please return to:

Orville Nelson
Center for Vocational, Technical and
Adult Education
UW-Stout
Menomonie, WI 54751
(715) 232-1382
FAX: (715) 232-1985

Appendix B

Correspondence

Orville W. Nelson
920 River Heights Road
Menomonie, Wisconsin 54751
Home: (715) 235-7631
Office: (715) 232-1382

May 7, 1992

Ms. Audrey B. Keyes
Technical Education Development Program
Milwaukee Area Technical College
700 West State Street
Milwaukee, WI 53233

Dear Audrey:

Re: Third Party Evaluation Visit on June 24

Howard Lee and I will visit your campus on Wednesday, June 24 to discuss the Technical Education Demonstration Project and view the teacher activities in the CAD Lab. Would the following schedule for the 24th be okay?

1. 9 - 11 Discuss project with you (You may want to involve other staff)
   - o major activities completed
   - o major accomplishments
   - o summer activities
   - o activities to be completed this fall
   - o purpose of the third party evaluation

2. 11 - 2 Visit CAD Lab and lunch

3. 2 - 3 Exit discussion with you

Unless you need an evaluation plan and proposal now, we can discuss our ideas in more detail on the 24th. We would prefer to do this on a consultant basis. This would simplify the paper work on our end. If you need a formal contract with UW-Stout, we can also do this. Under the consultant approach your project would pay us directly for our work. Our travel would be paid through your usual travel reimbursement process.

If you need more information before our June visit, please contact us.

Sincerely yours,

Orville Nelson
(O) 715-232-1362

matc

Milwaukee Area Technical College

April 3, 1992

Orville Nelson, Director
CVTAE/UW-Stout
218 Applied Arts Building
Menomonie, WI 54751

Dear Orville:

SUBJECT: TED Program Evaluation

Please excuse the lengthy delay in this letter. I am just now attempting to catch my breath after a way too busy winter and spring. I am enclosing the Technical Education Demonstration grant proposal from both fiscal year '91 and '92. It is slightly confusing as the first fiscal year is from October 1, 1990 to October 31, 1991, and the second year extends from November 1, 1991 to September 30, 1992.

You will find no evaluation listed in the initial grant proposals. Evaluation was requested in an addendum following the letter dated October 22, 1991. This was done at the behest of the Department of Education.

Thanks for your assistance in this.

Sincerely yours,

Audrey B. Keyes, Administrator
Technical Education Development Program

Howard Lee, Ph.D.
Joseph Pellegrin, Ph.D.

BEST COPY AVAILABLE

MILWAUKEE CAMPUS
700 West State Street
Milwaukee, Wisconsin 53233
414-278-6600

matc

Milwaukee Area Technical College

MILWAUKEE CAMPUS
700 West State Street
Milwaukee, Wisconsin 53233
414-278-6600

NORTH CAMPUS
5555 West Highland Road
Mequon, Wisconsin 53092
414-242-6500

SOUTH CAMPUS
6665 South Howell Avenue
Oak Creek, Wisconsin 53154
414-762-2500

WEST CAMPUS
1200 South 71st Street
West Allis, Wisconsin 53214
414-476-2040

October 22, 1991

Sonja Turner
United States Education Department - GCS
400 Maryland Avenue SW
ROB3 Room 3653
Washington, D.C. 20202-4835

Dear Sonja:

I have enclosed the items you requested: a revised budget, justification for the salary figures requested in that budget, and the third and fourth quarter reports.

We will have APPROXIMATELY the following dollar amounts unspent at the end of the first year of the grant.

Salaries	$40,000
Fringe Benefits	15,000

Please consider the items below for carry-over into the next year. We would very much like to use these unspent monies for the following expenses:

TRAVEL - TWO PERSONS TO AVA CONVENTION IN LOS ANGELES - an additional expense of $1,119.25.

Travel - POSSIBLE ADDITIONAL PRESENTATIONS

Presentation at Society for Technology & Teacher Education, AACE, Charlottesville, VA
No response as yet.

2 nights 2 $147, 2 persons	$ 588.00
Meals $ 41.75 per day, 3 days	250.50
Transportation	516.00
Convention fee @ $100	200.00
TOTAL	$1,554.50

Presentation at National TechPrep Network Inaugural National Conference in Dallas, Texas.

2 nights 2 $147, 2 persons	$ 588.00
Meals $ 41.75 per day, 3 days	250.50
Transportation	516.00
Convention fee @ $100	200.00
TOTAL	$1,554.50

MATC is an Affirmative Action Equal Opportunity Institution

EVALUATION

Consultants fee for evaluation -
University of WI, Stout $5,000.

PRINTING

Additional Hand-outs at conventions, TEDLines continuation, copies of curriculum developed - $5,000

Because of the extremely late start-up due to difficulties with Milwaukee Area Technical College's change in administration and hiring policies, we would very much like to use any additional surplus funds for staff to assist the schools in implementing an integrated curriculum. This would allow programs started in September, 1992, support through the first semester of the year. Administrative support, to write and distribute the final report and continue the coordination with MATC, would also greatly enhance the program.

Project Coordinator	$17,000
Benefits	5,818
MPS Tech Ed Coordinators	$18,598
Benefits	6,342

TOTAL CARRY-OVER FUNDS REQUESTED: $54,089.75

Thanks so much for your attention to this. As you will see from the reports, the programs are developing according to our plans; however, with such a late start, our timetable is three months behind. Any consideration you can give to carry-over is appreciated.

Sincerely yours,

Audrey B. Keyes, Administrator
Technical Education Development Program

Enclosures 12
CC: Robert Miller

Replication of Project

On September 26, 1991, MATC received approval from the Department of Public Instruction for the replication of the Technical Education Demonstration Program in nine suburban Milwaukee school districts. The school districts represent the outer tier of Milwaukee and have jointed together in an attempt to replicate the T.E.D. program. The school districts are: Cedarburg, Cudahy, Franklin, Fredonia, Germantown, Greenfield, Oak Creek-Franklin, Port Washington and Whitnall. A request has been received from St. Francis School District to join the consortium also; however, do to timeline constraint St. Francis will not be able to join the consortium until 1992.

The K-12 enrollment in the nine districts is approximately 6,300 students. Like the Technical Education Demonstration Program the Consortium places major emphasis on curriculum reform with strong components directed toward teacher improvement and the integration of technical education with academic education. The consortium program is entitled, "Metro-Milwaukee Technical Consortium Program" and it is expected to be in full swing in the spring of 1992. The districts who participate in the program are committed to five years of participation.

Evaluation

The MATC Technical Education Demonstration Program will have a third party evaluator in 1992. Commitment has been received from

the University of Wisconsin-Stout to conduct a third party evaluation for the Milwaukee Area Technical College. Dr. Orville Nelson, Director of Evaluative Services for the University will provide leadership for the third party evaluation. The evaluation will contain three major thrusts: (1) to determine the extent to which the measure of goals have been reached, (2) to evaluate the development of the "Certificate of Initial Mastery", and (3) to measure the extent to which curriculum reform has developed and has been replicated.

Tech Studies Team

South Division High School
Milwaukee Public School

Technical Education Demonstration Program
Milwaukee Area Technical College

NCRVE July 8-14, 1992 Institute

II. NARRATIVE

A. ***Summarize existing vocational education and work preparation programs in your school and/or community college. Note any relationships between these programs. Discuss any tech prep programs planned or currently in place.***

South Division's existing vocational, cooperative education, and work preparation programs consist of industrial cooperative education, marketing education, business careers, home economics related occupations, food service specialty program, travel/tourism/hospitality specialty program, senior work experience, and WINGS (Harley-Davidson, Inc. partnership work experience program).

Milwaukee Area Technical College (MATC) offers 69 associate degree programs and 50 diploma programs in marketing, business, consumer & hospitality service (including food service, travel), health occupations, and technology & industrial programs. There are 29 apprenticeship programs as well. All of the divisions have cooperative education and internships.

There are nine written articulation agreements between South Division and MATC, granting students advanced standing in associate degree programs without charge, based on competencies completed in high school classes. These competencies were developed by high school teachers, MATC instructors, and business and industry representatives.

Technological (Tech) Studies is a major tech prep integrated curriculum restructuring project that will be initiated in September of 1992 at South Division. This program of studies was designed, planned, written, and will be implemented by five current South

Division staff members. As part of the Technical Education Demonstration Program (a project funded under a grant by the Department of Education) MATC will assign a staff member part time to South Division to assist in coordinating their part of the program. This is part of the Technical Education Development program . The goal of this grant is to facilitate the transition of 16 to 25 year old students into technology occupations. The emphasis is on first generation college and minority youth. The Tech Studies program combines manufacturing technology with English, math, science, and marketing curricula. Contacts at MATC in these areas, as well as an individual to assist in the provision of resource materials, have been assigned. Personal computers have been designated as significant tech studies student learning/communication tools for activities ranging from journal/report writing to CAD-CAM (Computer - assisted drawing, Computer-assisted manufacturing) projects. The mission of Tech Studies, to prepare students for a technological world through a rigorous, integrated curriculum by combining academic and vocational skills with an emphasis on manufacturing, aims to maximize student academic and employment options upon graduation. MATC is working in conjunction with the South Division high school to provide students with opportunities to interact: South Division High School students will have an opportunity to shadow technical college students through a day of classes. The instructors and the routine of the college will become familiar through these exchanges. Through joint efforts, both institutions will provide opportunities for students to interact with employers through shadowing, mentoring, internships and

informational interviews.

In cooperation with the high school, MATC will be offering a certificate of Education Proficiency Endorsement (EPE) attesting to mastery of these core abilities. The EPE will be based on the MATC placement assessment (ASSET,compiled by ACT), student personal portfolios, and business interviews. Representatives of the business community will interview each student to determine employment readiness. The final certificate would be signed by the high school teacher, a mentoring MATC instructor and two business representatives.

Tech Studies and all eight additional vocational/work preparation programs emphasize and teach basic "core abilities," transferable skills essential to an individuals success regardless of occupation or community setting. The seven individual core abilities identified by the Tech Studies staff are:

1. Work productively
2. Learn effectively
3. Communicate clearly
4. Work cooperatively
5. Act responsibly
6. Value self positively
7. Think critically and creatively.

The Tech Studies project and all vocational programs share the commonality to innovatively provide and enhance the education of South Division students. This project will serve as a model for the entire Milwaukee Public School system.

B. *Describe the improvements your team would like to see in your district, and why you believe tech prep education is the appropriate means to bring about these improvements:*

The paramount improvement we would like to see in our district is to maximize student options upon high school graduation. The present high school program in our district emphasizes college as the

post-secondary choice upon graduation. Yet, less than 25% of Milwaukee Public School's students enroll and are accepted at colleges; even fewer succeed in completing a collegiate course of study. National labor statistics indicate that 80% of the jobs in the year 2000 will require post-secondary education but less than a baccalaureate degree. At the present time, only 10% of the MATC population consists of recent high school graduates; only 8% of South Division's graduates enroll at MATC. The time between graduation and actual enrollment at MATC (approximately age 29) results in the diminishing of their academic skills and fosters dependency on the government-supported social service system. The Tech Prep program will help to form a natural bridge which will bring students directly from high school into the vocational system. Employers serving on the 113 MATC advisory committees indicate that MATC is their primary avenue for obtaining skilled employees. Considerable research and planning has been executed with the advisory committees, businesses and industries, professional associations and parents, as well as representatives of MATC. The career needs of the majority of our urban students are not being met. There is a crucial need to expand the post-secondary options by creating programs that will enable students to succeed in various career paths.

A tech prep competency-based integrated curricula developed jointly by MATC & MPS will provide the needed improvements by connecting high school students to post-secondary schools and area industries. A Tech Prep program will ensure a coherent sequence of courses guiding a better prepared student from the high school into

his/her technical college program.

Our district also needs to improve high school students' perceptions of the relevance of what they learn in class. Most students perceive the taught skills and concepts as isolated facts and theories with little use beyond the classroom walls.

At present, the Tech Studies team of Milwaukee South Division High School in cooperation with the manufacturing technology advisory committee is developing a program to improve our student's perception by restructuring the curriculum for relevance. The program aims to make students heirs not only to vocational and technological opportunities, but also to a delivery of instruction which is integrated, exploratory, and dynamic.

The Tech Studies program provides linkage and integration of academic and vocational skills through a unit approach emphasizing manufacturing concepts. The integrated curriculum will be taught within a four-hour block allowing flexible scheduling of cross-discipline, hands-on projects. By using this approach, students may earn credit in all five areas, while emphasizing the interrelationship of disciplines and giving students the opportunity to immediately demonstrate the skills they have learned. Thus, the program will change the mode of accreditation and grading by incorporating a competency-based system. The use of authentic assessment of integrated projects, will lead to a more efficient and meaningful education.

For example, students who have learned principles of trigonometry and molecular structures of plastics, will apply that knowledge by

developing and manufacturing a plastic product. The production will be a process which includes many skills from computer-aided design to understanding the ethics surrounding how they market their creation and dispose of production waste. By visiting area industries, students will see how business solves some of the problems related to production. This learning process will reinforce the unit's literary works that present the idea that man's power is limited, but that he is continually striving to reach a "Garden of Eden." An additional opportunity will be present in that workers in the industries are frequently graduates of a technical college, thus illustrating the value of technical education.

C. *Describe any barriers you perceive to planning and implementing tech prep programs in your districts. How have they impacted current services?*

There are several major barriers in planning and implementing district tech prep programs. One is an outdated student programming practice that fosters fragmented, isolated delivery of the disciplines. Statistics indicate another barrier is the perception that anything less than a four-year college degree is second rate. There were over 4,000 transfers from the 4 year colleges to MATC. The overwhelming majority indicate that the reason for transfer was to attain usable work skills. This inhibits the development of the entire person. The intent of the integrated curriculum is to show through technical application that education is not the accumulation of irrelevant, obscure, academic facts, concepts and procedures, but an indispensable tool that must be constantly expanded and applied in our daily lives. Block programming and flexible scheduling by teams of teachers and counselors is needed to allow for integrated lessons

centered around technical activities and projects. All post-secondary options are relevant, not just the pursuit of a college prep/baccalaureate degree. Tech Prep needs to be developed and presented as an innovative program entitling students to make choices with positive exit and entry points over a lifetime. It cannot close doors, but instead, open doors for a richly integrated student body.

South Division does have the district's most ethnically diverse student body. The integrated curriculum of this project will address the difficulty of teaching to students with a variety of learning styles and retaining students whose families are extremely mobile. The block and family approach to scheduling of our tech prep program will motivate students to stay in school and continue their education. MATC will be included as part of this educational family.

Many high school students do not currently see MATC as a natural progression toward career goals because they are not regularly encouraged to take advantage of MATC's academic articulation opportunities. The formalized tech prep program will help to overcome the problem of separateness of the two institutions and give counselors a needed link flowing in both directions.

D. *Discuss what you hope to achieve at the institute. Explain how the team will insure a long term commitment to implementation of the plan to be developed at the institute. How will you make use of in-school planning and release time to implement your program?*

The team's participation in the institute will lead to a comprehensive, tech prep program which will benefit both high school and post-secondary students by preparing them with the competencies needed for employment. In addition, this institute will provide a forum for a meaningful exchange of ideas; for sharing strategies

concerning the implementation of a tech prep program, and for receiving reinforcement and constructive criticism of the currently proposed program.

Each school's administration is committed to supporting the program's innovated scheduling, grading and accreditation systems. To insure a long term commitment to implement the plan that is developed at the institute, five full time South Division teachers are going to be involved in teaching the tech prep program for four hours daily. The remainder of the school day will be used for joint planning time and to develop the expansion of the program. MATC and South Division teachers will develop strong partnerships, both vertical and horizontal. We also seek to establish an ongoing dialogue with institute participants involved in similar projects. This team will serve as a local resource to help other schools in the district and throughout the state develop similar programs. Through our membership in the state wide tech prep leadership council, the results will disseminate throughout the state.

The large base of manufacturing business partners will ensure community cooperation and financial support of the project. The Milwaukee Guarantee, a locally funded trust, guarantees financial aid to students who succeed in attaining 90% attendance and a 2.5 grade point also ensures that students who intend to pursue further education toward their career goals will be supported.

The substantial Carl Perkins funds that the district has invested in this project reflect the commitment to the program. The generous inservice time devoted to allowing team members to investigate and

dialogue with leaders in industry, technology, and tech prep education will lead to the growth of the program. Under the tech prep provision of the federal Carl Perkins Act, dollars will be committed to support a liaison position. The individual in this position will facilitate bringing South Division students to MATC, and bringing MATC technology to the high school. As one example of this, MATC will provide the use of CIM (Computer integrated manufacturing) Cell and instruction to South Division students. Planning and release time will be used for regularly scheduled meetings of MATC and South Division teachers. Future Carl Perkins funds will be targeted to replicate this program in other schools.

The proposed plan will utilize both academic and vocational teachers and resources. By providing the resources of the manufacturing technology wing of the school to the students, English, Math, Marketing, and Science, formerly taught as separate courses on different floors will become an integral part of a total applicable program. For example, science will no longer be an isolated discipline belonging only in a laboratory on the third floor. By taking advantage of the school's computer network through the CAD lab, students will have access to resources of each discipline. Through team teaching and authentic assessment projects which emphasize the interrelationship and interdependency of skills, both teachers and students will learn and apply newly acquired skills and attitudes.

The partnership developed at the Institute between the manager of the Career Planning and Assessment Center and the South Division guidance personnel will facilitate delivery of planning and assessment

services early in the students' educational careers and assist them in developing appropriate and realistic career/educational goals. Student portfolios which will include individual detailed assessments of strengths and weaknesses will allow students to practice self-evaluation. The portfolio will give parents a better opportunity to actively participate in their child's education by providing a more informative and prescriptive report of their child's progress. Parents will be a resource of the program by actively participating in projects while teaching skills and attitudes. It is our intention to have parents actively involved in students academic/career choices. The Vocational Studies Center of the University of Wisconsin- Madison has made a commitment to help evaluate the project and serve as consultants, providing additional staff development. They will use this to assist the state in state and national dissemination. As a result of participation in this institute, the MATC/South Division tech prep partnership will become a national model.

Nelson and Associates
920 River Heights Road
Menomonie, WI 54751

Home: (715) 235-7631
Office: (715) 232-1382

DATE: September 4, 1992

TO: Audrey Keyes

FROM: Howard Lee

SUBJECT: September 24-25 Visit

Just want to confirm a few things for our visit on September 24-25, 1992.

On Thursday, September 24, 1992 we plan to visit South Division High School from 9:00-11:30 a.m. and Greenfield High School from 1:00-3:30 p.m. You agreed to make arrangements with the schools and schedule us to meet with the principals and project participants and visit classrooms where the project has been implemented. You also indicated that you may schedule a meeting with the CBO group from 4:30-5:30 p.m. A couple of maps indicating parking and contact persons at each school would be helpful.

On Friday, we are scheduled to meet with you and your staff from 9:00-11:45 a.m.

MILWAUKEE CAMPUS
700 West State Street
Milwaukee, Wisconsin 53233
414-278-6600

matc

Milwaukee Area Technical College

MILWAUKEE CAMPUS
700 West State Street
Milwaukee, Wisconsin 53233
414-278-6600

NORTH CAMPUS
5555 West Highland Road
Mequon, Wisconsin 53092
414-242-6500

SOUTH CAMPUS
6665 South Howell Avenue
Oak Creek, Wisconsin 53154
414-762-2500

WEST CAMPUS
1200 South 71st Street
West Allis, Wisconsin 53214
414-476-3040

RECEIVED
SEP 21 1992
By

September 18, 1992

Dr. Howard Lee, Dean
School of Industry and Technology
University of Wisconsin, Stout
Menomonie, Wisconsin 54751

Dear Howard:

This is to confirm your visit on September 24-25, 1992. On Thursday, if you arrive at MATC by 8:45 a.m., I will direct you to South Division, a very short drive, and introduce you to the principal and faculty. You could stop in the loading zone where Seventh Street dead ends south of Highland and just come in to the first floor of Foundation Hall to get me or park in the T-Lot on the northeast corner of Seventh and Highland (permit enclosed). Come directly to my office on the first floor of Foundation Hall.

The schedule for the day is as follows:

9:00 - 11:00 a.m.	South Division High School
	Bonnie Banaszak - Acting Principal — Jerry De Leeuw - Technical Education chairperson
	Collette Ruszynski - English instructor — Richard Anderson - Math instructor
	Barbara Johnson - Guidance
11:30 - 12:30	Lunch (If you call me, a few of us could meet you for lunch)
1:00 - 2:30	Greenfield High School
	Robert Laabs - Principal Paul Ahrens - Education for Employment Coord.
2:30	Return to MATC
3:00 - 3:30	Integrated Curriculum Instructors Deborah Thomas — Richard Boldt — Terry Wiedoff
3:30 - 4:00	CBO Classes Anthony Wajeeh — Maria Figueroa — Ron Fancher

Friday, September 25, 1992

9:00 - 11:45 Meet with project staff

I hope that this is helpful to you and look forward to seeing you on the 24th.

Sincerely,

Audrey B. Keyes, Administrator
Technical Education Development Program

University of Wisconsin-Stout

Menomonie, Wisconsin 54751-0790

Center for Vocational, Technical and Adult Education
School of Industry and Technology
Phone: 715/232-1382

JUL 6 1992

TO: Audrey Keyes

FROM: Orville Nelson

DATE: July 2, 1992

SUBJ: Evaluation Form for Your Summer TED Courses.

Attached is a draft copy of an evaluation form for the summer courses you are running as a part of the project. We would like to have you administer this to the students who will be participating in these courses during the rest of the summer.

If you would like to make changes in the form, or have any questions, please contact me. My phone number is (715) 232-1382 and my fax number is (715) 232-1985.

jb

Attachment-Evaluation Form

Integrating Academics and Technology

Session: _____ Date: _____

Directions: Respond to the following items based on your perception of the quality of the experiences in this course. Use the following responses:

1=P=Poor
2=F=Fair
3=G=Good
4=VG=Very Good
5=E=Excellent

Also, your comments on the open-ended questions at the end of his form would be appreciated.

Activities	Responses				
	P 1	F 2	G 3	VG 4	E 5
1. Orientation to the discipline/technical area	1	2	3	4	5
2. Lab activities--hands-on experiences with technology	1	2	3	4	5
3. Industry tours(s).....	1	2	3	4	5
4. Developing the curriculum unit.....	1	2	3	4	5
5. Opportunity to apply academic skills to workplace tasks ...	1	2	3	4	5
6. Overall evaluation of the course.....	1	2	3	4	5

7. Which of the following best describes your position in your school district?

____ (1) Academic Teacher
____ (2) Vocational Teacher
____ (3) Administrator
____ (4) Counselor
____ (5) Other _____

8. What was most valuable in the course?

9. How could the course be improved?

10. What would you like us to do in the future? (Topics, activities, etc.)

APPENDIX B

Planning for Tomorrow Today

A conference on:

Tech Prep:

a

National Priority

March 3, 1992

8:00 a.m. - 3:45 p.m.

Milwaukee Area Technical College
Video Conference Center
700 W. State Street
Milwaukee, WI 53233

79

matc
Milwaukee Area Technical College
700 West State Street
Milwaukee Wisconsin 53233-1443

MATC is an Affirmative Action/Equal Opportunity Institution

What Is Tech Prep?

Tech Prep is a new curriculum that joins vocational and academic course work to make school meaningful for more students.

Tech Prep is an element of the school-to-work transition, developed to amend the current education-for-employment standard to include job, technical, and college preparation as acceptable pathways for life success.

Tech Prep, as defined by the WBVTAE/WDPI, 1991, "is a sequence of courses and experiences designed to provide high school graduates with a more technically oriented background to enable them to make successful transitions from school to post-secondary education or to work...Through integrated curriculums students will acquire the higher level skills required in the emergent workforce!"

Tech Prep curriculums provide for cooperation between businesses, high schools, and the technical colleges.

KEYNOTE SPEAKER

Daniel M. Hull

Daniel M. Hull is President and Chief Executive Officer of the Center for Occupational and Research Development (CORD) in Waco, Texas. Mr. Hull received his B.S. degree from the University of Texas, a M.S. degree from the University of Pittsburgh, and has studied at John Hopkins University. He has been a professional electrical engineer for the past eighteen years. He and his staff research and design curriculum materials and disseminate programs and courses for technical and occupational education in technical and community colleges and public high schools. He has been involved in developing curricula and methodologies to link education in secondary and postsecondary institutions. He is the co-author of Tech Prep Associate Degree: A Win/Win Experience.

Sponsored by
MATC
Milwaukee Area Technical College

under the following grants
MECAP
(Milwaukee Employment Competency Articulation Program)
TED
Technical Education Demonstration Program
MTEC
(Milwaukee Technical Educational Consortium)

Planning for Tomorrow Today

MATC's

Milwaukee Technical Educational Consortium

and

Milwaukee Employment Competency Articulation Program

Tuesday, March 3, 1992
8:00 a.m. - 3:45 p.m.

7:15 - 8:15 a.m.
Leadership Breakfast

AGENDA
(M-TEC members only)

8:00 - 8:30 a.m.
M-TEC Registration
Video Conference Center
Coffee, Pastries

8:30 - 8:40 a.m.
Welcome
Dr. Joseph Pellegrin
Director, High School Relations
MATC

8:45 - 10:00 a.m.

Opening Session-Panel Discussion
"Tech Prep--What Is It?"

10:00 - 10:15
Break

10:15 - 11:30 a.m.
Presentation
"Implementing the Integrated Curriculum"

AGENDA
(M-TEC/non-consortium)*

11:30 - 12:30 p.m.
Lunch
(Please reserve)

12:00 - 12:45 p.m.
Non-consortium Registration
Video Conference Center

12:45 - 1:45 p.m.
Keynote Address
Daniel M. Hull
President, CORD

1:45 - 1:55 p.m.
Break

2:00 - 3:35 p.m.
District Team Meeting
Round Table Discussions
(M-TEC members)

2:00 - 2:45 p.m.
Technology Concurrent Workshops
Session I - Non-Consortium

2:50 - 3:35 p.m.
Technology Concurrent Workshops
Session II - Non-Consortium

Planning for Tomorrow Today Conference

What role will you play in educating tomorrow's youth?

Find out how you can contribute--
This conference is a must!

Who Should Participate?

- Postsecondary, high school, and middle school teachers:
  - School Counselors
  - Administrators
  - Curriculum Supervisors
- School Board & Advisory Committee Members

*M-TEC members - A consortium between MATC and nine suburban schools: Cedarburg, Cudahy, Franklin, Germantown, Greenfield, North Ozaukee, Oak Creek, Port Washington and Whitnall

*Non-consortium - All other schools not listed above

Registration Form

Planning for Tomorrow Today

Return form to: Jimmy Hall
MATC - FH1
700 W. State St.
Milwaukee WI 53233
Phone: 225-4532

Please check the two (2) breakout sessions you will attend (non-consortium only)

__ Computer Integrated Manufacturing (CIM)
__ Video Communications
__ Computer Aided Design (CAD)
__ Dietetic Technician - Trends for Tomorrow
__ Trends in the Health Care Industry
__ Innovations in Business

Name _____ **Title** _____
School/Organization _____ **Address** _____
City _____ **State** _____ **Zip** _____
Daytime Phone No. _____ **LUNCH** ___ Yes ___ No

Registration Deadline: February 25, 1992

*DPI Clock Hours given for Full-Day only!
72 (pending approval)

BEST COPY AVAILABLE

APPENDIX C

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APPENDIX D

Partnership Agreement

Entered into by

Milwaukee Area Technical College

and

Milwaukee Custer High School

October 8, 1992

77. 89

A PARTNERSHIP AGREEMENT

between

Milwaukee Custer High School

and

Milwaukee Area Technical College

The Partnership being established between Milwaukee Custer High School and Milwaukee Area Technical College will provide for an active exchange between the two educational institutions. Activities within the Partnership will involve the sharing of students, faculty, and staff, curricular information, and other aspects of the two institutions. The desire for the Partnership arrangement arose out of perceived needs by both institutions. Custer High School's Technical Education Specialty and Teacher Preparation Program are presently involved in the training and development of students in these areas; Milwaukee Area Technical College provides extensive opportunities for technical training, immediate renumerative employment after graduation and a bridge to the university from high school. The ability of MATC to move minority students from high school onward, the strong desire and commitment of Milwaukee Area Technical College to increase the number of minority students and the large pool of qualified minority students in the Custer Specialty Programs provide the basis for a natural alliance. Although the alliance of the Specialty Programs and the Technical College will be the initial point of contact between these two institutions, the partners understand that the relationship will be dynamic and proactive with its primary orientation being that of meeting the needs of our students.

Since at least 65 percent of Custer High School's student population is minority, the three institutions will collaborate in stimulating and developing the professional development of minorities in the fields of Education, Technology Education, Applied Technology, and related fields.

MILWAUKEE CUSTER HIGH SCHOOL

Goals, Objectives and Activities

Goals:

1. To increase the number of post-secondary education (or continuing education) bound Custer High School students, especially from our minority community.

2. To develop and enhance the quality of educational experiences for Milwaukee Custer High School students.

Objectives:

1. By establishing a positive cooperative working relationship with Milwaukee Area Technical College, an institution with a national reputation for the excellence of its programs in the areas of Technology.

2. By affording the students of the Custer High School Technical Education and Teacher Preparation Programs with the opportunities to explore careers in industry and technology or alternative leading to associate and/or baccalaureate degrees.

3. By affording Custer High School students access to information about pre-college programs, financial resources and support systems designed to assist students in their daily lives.

4. By providing encouragement and motivation to Custer students to enroll in post-secondary education.

5. By affording the Custer High School Faculty and Staff professional development opportunities.

6. By providing for an evaluation of the working agenda of activities between both institutions at the end of each school year and to develop and implement Goals, Objectives, and Activities that will guide the partnership for the following year on an annual basis.

Activities:

1. Custer High School will identify an administrator and staff/teacher(s) who will serve as contact persons and who will initiate dialogue with Milwaukee Area Technical College regarding partnership matters.

2. The contact persons from Custer High School and MATC will work cooperatively in planning and developing partnership activities for the year.

3. The contact persons from Custer High School will visit MATC as necessary to finalize and expedite partnership matters.

4. Custer High School will identify up to 35 senior students and plan jointly with MATC arrangements for an on-campus visitation.

5. Custer High School will identify up to 35 Sophomore and Junior students who are interested in attending Milwaukee Area Technical College and will plan jointly all necessary local arrangements for an on-campus visitation.

6. Custer High School, working cooperatively with the Milwaukee Area Technical College designee, will identify up to 15 students and will facilitate their enrollment into MATC's pre-college programs (shadowing, internships, etc.).

7. Custer High School working cooperatively with MATC designee will make arrangements to have the Milwaukee Area Technical College's faculty/staff and minority students speak to classes during Career Planning Days at Custer High School.

8. Custer High School working cooperatively with MATC designee will develop a special program which will incorporate minority faculty/staff and students from Milwaukee Area Technical College for the purpose of encouraging and motivating Custer High School students to pursue a postsecondary education.

9. Custer High School working cooperatively with MATC designee will plan and coordinate a visit by members of Milwaukee Area Technical College faculty/staff to visit facilities, meet teachers, staff and students, share curricula and curricular ideas, and teach in classes.

10. Custer High School will send teachers/staff to the Milwaukee Area Technical College to visit facilities, meet teachers, staff and students, share curricula and curricular ideas, and speak in classes as planned activities change at MATC.

11. Custer High School will work cooperatively with the contact persons of Milwaukee Area Technical College to do an annual evaluation of all aspects of the partnership and through this evaluation to develop and implement Goals, Objectives, and Activities that will direct the partnership in the succeeding year.

MILWAUKEE AREA TECHNICAL COLLEGE

Goals, Objectives and Activities

Goals:

1. To enhance the recruitment of minority students into post-secondary education.

2. To enhance the quality of the educational experience for minority students at MATC and other postsecondary educational opportunities.

Objectives:

1. By establishing a positive, proactive, cooperative working relationship with Milwaukee Custer High School, a school with a 65 percent minority student population.

2. By increasing the awareness and knowledge of Custer High School students and faculty regarding the educational/career opportunities (particularly in the Technology Education and Technology related areas), pre-college programs, financial resources, and student support systems available.

3. By providing encouragement and motivation to Custer High School students (and their parents) who are pursuing a postsecondary education.

4. By sharing knowledge and expertise with Custer High School in the areas of Education and Technology (and other areas as deemed appropriate) for the purposes of curriculum development and/or enhancement.

5. By providing for an evaluation of the working agenda of the activities between both institutions at the end of each school year and to develop and implement Goals, Objectives, and Activities that will guide the partnership for the following year on an annual basis.

Activities:

1. MATC will identify any individual(s) who will serve jointly with Custer designee and initiate dialogue with Custer High School regarding partnership matters.

2. The contact individual(s) will be responsible for planning and developing partnership activities for the year.

3. The contact individual(s) will visit Custer High School to finalize or expedite partnership matters as appropriate.

4. MATC working cooperatively with Custer High School will plan and develop a campus visit for up to 35 Senior students. The campus visit will include, but not be limited to, a tour of the campus, information and a tour of the School of Industry and Technology (and other schools as deemed necessary), information about pre-college programs, financial aid resources, support services, and motivational sessions.

5. MATC, working cooperatively with Custer High School, will develop a special campus visitation for up to 35 Sophomores and/or Junior students interested in attending the college.

6. MATC, working cooperatively with Custer High School, will facilitate the enrollment of up to 15 students in the summer pre-college programs.

7. MATC will organize a panel of minority students to speak and assist, as appropriate, during campus visits and when the Milwaukee Area Technical College visits Custer High School.

8. MATC faculty/staff and minority students will speak to class during Career Days at Custer High School.

9. A special trip will be jointly planned for minority faculty/staff and students to visit Custer High School to serve as role models and to encourage/motivate students to pursue a post-secondary education.

10. MATC will jointly plan and coordinate a visit by interested Custer High School teachers and staff to visit the facilities, meet teachers, staff and students, share curricula and curricular ideas, and speak in classes.

11. MATC will send faculty/staff to visit the facilities, meet teachers, staff and students, share curricula and curricular ideas, and to speak in classes as planned activities change with Custer High School.

12. MATC will provide Custer High School with an annual report regarding the recruitment and retention of Custer High School students.

13. MATC working with Custer High School, will complete an annual evaluation of all aspects of the partnership and through this evaluation develop and implement the Goals, Objectives, and Activities that will direct the partnership in the succeeding year.

This agreement is to confirm the cooperative Partnership between Custer High School and Milwaukee Area Technical College. This agreement is to allow collaboration between Custer and MATC in Tech Prep initiatives, curriculum writing and education reform. This agreement is for the 1992-93 school year.

Barbara D. Holmes, Ph.D.
President
Milwaukee Area Technical College

Howard L. Fuller, Ed.D.
Superintendent
Milwaukee Public School System

Philip Langerman, Ph.D.
Vice President -
Academic Affairs - MATC

Robert C. Jasna,
Deputy Superintendent
MPS

Joseph Pellegrin, Ph.D.
Dean, Continuing Education
Business Outreach - MATC

Robert Peters
Principal
Custer High School

Audrey Keyes, Administrator
Technical Education
Demonstration Program - MATC

Frederick Schroedl,
Curriculum Specialist,
Trade and Technology Education

Partnership Agreement

"We want every school to have its friend and partner who can work with teachers and students to provide an important real dimension to education for employment. It's one step toward developing the best trained workforce in the nation."
— Anthony S. Earl

In the pursuit of educational quality

Custer High School

has entered into a Scholastic Partnership

with

Milwaukee Area Technical College

on this 8th day of October, 1992.

Barbara A. Barker

Phillip Langeman

Gary D. Gelbman

Sidney B. Kilgas

Harvey J. Fuller

Robert C. Jones

Robert L. Fitz

Frederick Schroedl

APPENDIX E

PROGRAMS APPROVED FOR ARTICULATION

(ADVANCED STANDING AND 2 + 2)

1991

PROGRAM AREA	SCHOOL
	Milwaukee Public High Schools
Agribusiness	Vincent
Auto Body and Combustion Engines	Pulaski
Business Education Accounting Admin. Asst. — Information Processing Admin. Asst. — Secretarial Legal Secretary Medical Secretary Banking and Finance Business Mid-Management Supervisory Management	Bay View Custer 17 Hamilton 95 Juneau 36 Madison Marshall Milwaukee Tech North Division Pulaski 81 Riverside 21 Rufus King 5 South Division Vincent Washington 15
Business Data Processing	Washington
Child Care (2 + 2)	MPS — HERO Programs (5) N. Division 2 S. Division 20 Hamilton 9
Civil Engineering	Milwaukee Tech Rufus King
Commercial Art	Milwaukee Tech
Computer Programming (Elec. Tech. — Computer Science)	Washington
Computerized Machining	Milwaukee Tech 1
Dental Assisting	North Division
Graphic Arts/Printing	Milwaukee Tech
Hotel/Motel Management	South Division 3
Human Services	Riverside
Information Processing (Administrative Assistant)	Hamilton
Fashion Merchandising/Retail Management	Bay View Custer Hamilton Juneau Madison Marshall North Division Pulaski South Division Vincent Washington
Mechanical Design	Milwaukee Tech 3
Refrigeration/Air Conditioning	Custer
Restaurant and Hotel Cookery	South Division/All MPS — HERO Programs (9)
Technical Mathematics	Milwaukee Tech 55 Rufus King
Welding	Milwaukee Tech South Division

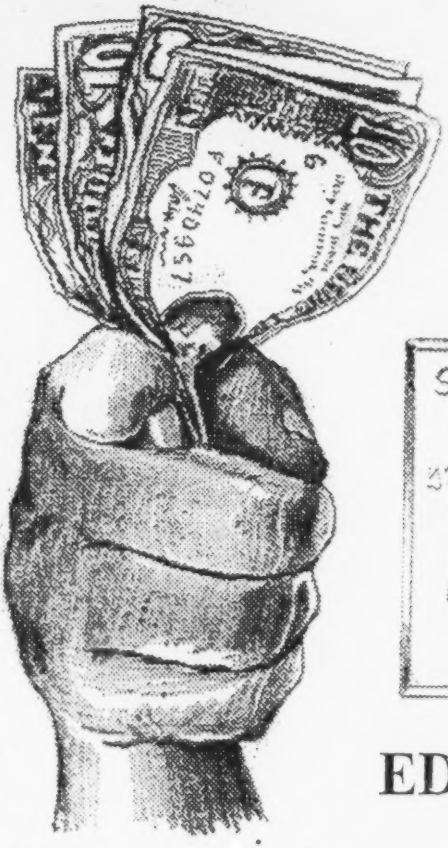
1942 count

MATC Programs Approved for Articulation With MPS and Suburban High Schools
ADVANCED STANDING AND 2 + 2

MATC Program Area	Milwaukee Public High Schools	Suburban High Schools
Accounting and Banking		
Accounting Banking and Financial Services	Bay View,Custer, Hamilton, Juneau, Madison, Marshall, Milwaukee Technical, North Division, Pulaski(5), Riverside, Rufus King, South Division, Vincent, Washington	Cedarburg, Cudahy (20), Franklin, Germantown, Grafton, Greendale (12), Greenfield (9), Nathan Hale, Nicolet, Oak Creek, Port Washington (22), South Milwaukee (30), *St. Joan Antida, Wauwatosa East (38), Wauwatosa West (13), West Milwaukee, West Allis Central (3)
Appliance, Cooling and Heating Servicing		
Refrigeration/Air Conditioning	Custer	
Automotive, Diesel, Aviation, and Small Engine		
Auto Body and Paint Technician Diesel and Power Train Servicing	Pulaski	
Business Management		
Business Mid-Management Supervisor's Management	Bay View, Custer, Hamilton, Juneau, Madison, Marshall, Milwaukee Technical, North Division, Pulaski, Riverside, Rufus King, South Division, Vincent, Washington	Cedarburg, Cudahy, Franklin, Germantown, Grafton, Greendale, Greenfield, Nathan Hale, Nicolet, Oak Creek, Port Washington, South Milwaukee, *St. Joan Antida, Wauwatosa East, Wauwatosa West, West Milwaukee, West Allis Central
Hotel/Motel Management	South Division	
Community Services		
Child Care	(2 + 2) MPS - HERO Programs (5) (Hamilton - 10 Riverside - 15 S.Div. 13)	Franklin, Nathan Hale, Port Washington, Wauwatosa West, Wauwatosa East, West Milwaukee, West Allis Central, Whitnall
Human Services	Riverside	South Milwaukee (14)
Computer Information		
Business Data Processing	Washington	Port Washington
Dental Health		
Dental Assisting	North Division	
Design and Drafting		
Civil Engineering	Milwaukee Technical, Rufus King	Franklin (5), Oak Creek, Port Washington
Interior Design		Franklin (10), Nathan Hale, Oak Creek (14), Port Washington, South Milwaukee (12), West Milwaukee, West Allis Central, [illegible]
Mechanical Design	Milwaukee Technical (4)	Franklin (8), Nathan Hale, Oak Creek, Port Washington, West Milwaukee (26), West Allis Central
Electronic Technology		
Computer Programming (Electronic Techology - Computers)		Port Washington
Food Service and Dietetics		
Culinary Arts (Restaurant and Hotel Cookery)	South Division, All MPS-HERO Programs (9)	Brown Deer, Nathan Hale, Port Washington, South Milwaukee (17), West Milwaukee, West Allis Central, Oak Creek
Graphic Arts and Telecasting		
Commercial Art	Milwaukee Technical	Oak Creek
Graphic Arts/Printing	Milwaukee Technical (4)	Cudahy, Nathan Hale (1), New Berlin West, Oak Creek (8), South Milwaukee (2), West Allis Central, New Berlin-Eisenhower, Waukesha North (11), Waukesha South
Horticulture		
Landscape Horticulture	Vincent	Franklin
Office Technology		
Adm. Asst. -- Information Processing Adm. Asst -- Secretarial Legal Secretary Medical Secretary	Bay View, Custer, Hamilton (230) Juneau, Madison, Marshall, Milwaukee Technical, North Division, Pulaski (25), Riverside, Rufus King, South Division, Vincent, Washington	Cedarburg, Cudahy (14), Franklin (44), Germantown (59), Grafton, Greendale (66), Greenfield (90), Nathan Hale, Nicolet, Oak Creek, Port Washington (32), South Milwaukee (98), *St. Joan Antida, Wauwatosa East (44), Wauwatosa West (25), West

APPENDIX F

FOCUS ON YOUR FUTURE



EMPLOYMENT **EDUCATION**

Visit MATC and Tour These Areas:

- Health
- Printing/Graphics
- Business
- Technical/Industrial
- Consumer & Hospitality Services

Tuesday, May 19, 1992
MATC, 700 W. State St.
1st Floor Student Center
8:30 - 1:30
FREE LUNCH

•Plus•

Talk face to face with Representatives from:

- General Manufacturing Work
- Wisconsin Telephone Company
- Printing
- Health
- Sheet Metal
- Carpentry
- Environmental

FOCUS ON YOUR FUTURE

Agenda
May 19, 1992

8:30 - 9:15 ..... **Options film**
Job Market Report
Tom Moede

9:20 - 10:15 ..... **Break-out Groups**
(Career Planning, Admissions, Program Counseling, Financial Aid, Social Life, Child Care, etc.)
Track I
Track II

10:20 - 11:15 ..... **Tours**
- Health
- Printing
- Graphics
- Business
- Consumer & Hospitality Services
- Technical/Industrial

11:30 - 12:30 ..... **Lunch**
[Compliments of MATC]

12:35 - 2:00 ..... **Employers and Business Representative Break-out Groups**
- General Manufacturing Work
- Wisconsin Telephone Company
- Printing
- Health
- Sheet Metal
- Auto Mechanics
- Carpentry
- Environmental

FOCUS ON THE FUTURE

(Projects TED, Hold and Second Chance)

Because staff and faculty at MATC are concerned and interested in the education and employment of our community residents, we have designed a pilot program geared toward such ends. We hope to better inform students of educational and employment trends. We also want to begin preparing students to meet the demands of the job market. Therefore, we have invited several employers and business men and women to MATC to speak to students who are studying in Community Based Organizations. These representatives have volunteered to explain their areas of expertise and to answer questions that students may have.

We anticipate representatives from the following fields:

- Wisconsin Telephone Company
- Health
- Carpentry
- General Manufacturing Work
- Printing
- Auto Mechanics
- Sheet Metal
- Environmental

In addition, students will tour the following areas at MATC:

- Health
- Business
- Consumer & Hospitality Services
- Printing/Graphics
- Technical/Industrial

• *Lunch will be provided compliments of MATC.* •

Don't miss this great opportunity to prepare for your future.

SENIOR VISITATION STATISTICS

DATE	SCHOOL	TOTAL #	MAKEUP OF STUDENTS
9/20/90	Greendale Martin Luther Pius Whitnall	67-- 22% app. by 1/25/91	35 female 32 male 6 minority

Tour and Career Interests:

T & I (21)	Health (11)	C&H (32)
Hydraulics	Biomed. Repair	Int. Des. (2)
Arch.Tech.	Nursing	Child care
Carpentry	X-Ray Tech.	Cosmetology (5)
Auto Mech. (3)		
Construction		
Mechanics		
Htg. & Air Cond.		

Business (26)	Graphics (8)
Accounting	

Other: Fire (1), Police (3), Travel (1), Advertising (1), Fashion Merchandising (1), Real Estate (1), Play ball (1)

DATE	SCHOOL	TOTAL #	MAKEUP OF STUDENTS
9/24/90	West Allis Wauw. E & W Wauwatosa W. WI Lutheran Juneau	58-- 22% app. by 1/25/91	45 female 13 male 4 minority

Tour and Career Interests:

T & I (10)	Health (13)	C&H (17)
Electrical	Physical Ther. (3)	Chd. Care (3)
Small Engine	Occup. Ther. (2)	Int. Des. (2)
Engrg. Tech.	Resp. Ther.	Hotel/Motel (2)
	Phlebotomy	

Business (31)	Graphics (5)	Other
Acctng (4)		Teacher
Fash. Merch. (2)		English
Travel (3)		Public Relations
Small Bus. Man.		Fire; Police (3)
Med. Sec.		Real Estate
		Interpreter Tech
		Interntnl. Studies

DATE	SCHOOL	TOTAL #	MAKEUP OF STUDENTS
10/9/90	Hamilton Greenfield Dottke	71-- 15% app. by 1/25/91	42 female 25 male 6 minority

Tour and Career Interests:

T&I (13)	Health (13)	C&H (16)
Carpentry (2)	Phys. Ther.	Cosmetology (3)
Mechanics	Nursing (3)	Chd. Care (6)
Electronics	Med. Tech.	Int. Design
Welding		
Comp. Science		

Business	Graphics	Other
Travel (3)	Comp. Gr.	Music
Data Proc.		Police (4)
Acctg.		
Fash. Merch.		

SENIOR VISITATION STATISTICS (2)

DATE	SCHOOL	TOTAL #	MAKEUP OF STUDENTS
10/18/90	Vincent Germantown Ozaukee	66-- 9% app. by 1/25/91	37 female 29 male 16 minority

Tour and Career Interests:

T & I (17)	Health (5)	C&H (10)
Auto Mech (3)	Graphics 15)	Child Care (2)
Tool & Die (3)		Interior Design
Masonry	Business (22)	Cosmetology
Carpentry (2)		
	Accounting	

Other

Liberal Arts, Interpreter Tech.

10/22/90	Pt. Wash. Juneau Nthn Hale	51-- 7% app. by 1/25/91	33 female 18 male 15 minority

Tour and Career Interests:

T & I (11)	Health (14)	C&H (15)
Graphics (5)	Dental Hyg.	Hotel/Motel
	Occ. Ther.	Child Care
Art	Nursing	
Photography		
Business (13)	Other	
Accounting (4)	Radio/TV	
Med. Sec.	LA&S	
Computer Pro.	Fire/Police	
Marketing	Music	
Fashion Merch.	AODA	
Secretarial	Aviation	

11/6/90	St. Francis Grand Alt. Cudahy Bay View	34-- 24% app. by 1/25/91	11 female 23 male 7 minority

Tour and Career Interests:

T & I (20)	Health (4)	C&H (5)
Electro-mech. tech.	Occ. Ther.	
Engineering	Graphics (5)	Business
		Acctg. (2)

SENIOR VISITATION STATISTICS (3)

DATE	SCHOOL	TOTAL #	MAKEUP OF STUDENTS
11/12/90	Riverside Madison Grafton	57-- 19% app. by 1/25/91	34 female 23 male 29 minority

Tour and Career Interests:

T & I(20)	Health (6)	C&H (18)
Auto Mech. Electronics Computer Science Tool & Die CNC Welding	Nursing Pharmacy Tech.	Cosmetology
Business (25)	**Graphics (14)**	**Other**
Secretary Legal Sec. Marketing Travel Fash. Merch.		CUTEP Elementary Ed. Sound Engrg. Veterinary Med. Funeral Service Human Services

---

11/29/90	South Division King Whitefish Bay West Milwaukee Adult H.S.	75-- 21% app. by 1/25/91	41 female 34 male 23 minority

Tour and Career Interests:

T & I (18)	Health (12)	C&H (17)
Mechanics Comp. Mfg. Carpentry Electrical Auto Mech.	Nursing	Child Care (3) Cosmetology (3) Hotel/motel
Business	**Graphics**	**Other**
Secretary (2) Fash. Merch. (2) Travel Acctg. (3)	Printing Photography (2)	Psychology Spec. Ed. (2) LA&S Fire/Police (4) Biology El. Ed. Meteorology Music Theory Communications Acting Jewelry Sales Public Works

SENIOR VISITATION STATISTICS (4)

DATE	SCHOOL	TOTAL #	MAKEUP OF STUDENTS
12/6/90	Oak Creek Kilmer N. Division SER	71-- 12% app. by 1/25/91	49 female 22 male 10 minority

Tour and Career Interests:

T & I (10)	Health (17)	C&H (21)
Engineering (3) (3) Computer Elec. Welding	Nursing (3)	Culinary Arts

Business (34)	Graphics (23)	Other
Marketing Management	Commercial Art	Car Design Social Work Court Reporting Advertising Real Estate Fire

---

DATE	SCHOOL	TOTAL #	MAKEUP OF STUDENTS
12/10/90	Custer Cedarburg Juneau Homestead Milw. Luth.	51-- 8% app. by 1/25/91	28 female 23 male 20 minority

Tour and Career Interests:

T & I (15)	Health (9)	C&H (16)
Drafting Tool & Die (2) Auto Body Engineering	Nursing Dental	Child Care Cosmetology

Business (19)	Graphics (10)	Other
Accounting Computer Pro. Travel (2)		Agriculture Law (2) Education Real Estate

FOCUS ON YOUR FUTURE - FALL, 1991
SENIOR STATISTICS

DATE	SCHOOL	TOTAL #	MAKEUP OF STUDENTS
9/24/91	Franklin Oak Creek Kilmer Whitefish Bay Nicolet	81	34 female 47 male 15 minority
(12% applied by 1/3/92)			
10/3/91	S. Milwaukee Cudahy W. A. Central W. Milwaukee	53	33 female 20 male 5 minority
(26% applied by 1/3/92)			
10/14/91	South Division Grand Milw. Tech.	54	30 female 24 male 30 minority
(20% applied by 1/3/92)			
10/18/91	Hamilton Greenfield Pulaski Bay View	71	44 female 27 male 35 minority
(7% applied by 1/3/92)			
11/7/91	Riverside St. Joan Antida WI Lutheran	48	37 female 11 male 36 minority
(10% applied by 1/3/92)			
11/11/91	Custer Washington Marshall Madison	154	91 female 63 male 101 minority
(12% applied by 1/27/92)			

MATC is an Affirmative Action/Equal Opportunity Institution

DATE	SCHOOL	TOTAL #	MAKEUP OF STUDENTS
11/18/91	Whitnall Nathan Hale Brown Deer	59	32 female 27 male 22 minority

(10% applied by 1/28/92)

12/5/91	King	34	17 female
	Messmer		17 male
	Shorewood		18 minority
	Greendale		
	Pius		

(9% by 1/28/92)

12/10/91	Cedarburg	46	25 female
	Grafton		21 male
	Ozaukee		0 minority
	Germantown		

(9% applied by 1/28/92)

343 Females
257 Males
262 Minority students
---

283 students from MPS
317 students from suburban and parochial schools

TOTAL: 600 Seniors in Attendance

72 students (12%) applied by January 28, 1992

MATC is an Affirmative Action/Equal Opportunity Employer

JUNIORS ONLY -- SEMESTER TWO

2/6/92	Oak Creek Kilmer	38	24 female 14 male 19 minority
2/13/92	Cudahy St. Francis	48	27 female 21 male 17 minority
2/17/92	South Divison	14	7 female 7 male 10 minority
3/5/92	Milwaukee Tech. Shalom	22	7 female 15 male 10 minority
3/18/92	Hamilton Bay View Greenfield	59	46 female 13 male 22 minority
3/24/92	Riverside St. Joan Antida Wauwatosa West	27	21 female 6 male 15 minority
4/2/92	Custer Washington	34	19 female 15 male 30 minority

4/14/92	Brown Deer Vincent	55	30 female 25 male 27 minority
4/28/92	Martin Luther Greendale Rufus King	27	10 female 17 male 15 minority
5/4/92	Cedarburg Germantown Ozaukee	66	29 female 37 male 0 minority

220 Females
170 Males
165 Minority Students
---

166 Students from MPS
224 Students from Suburband and Parochial Schools

Total: 390 Juniors in Attendance

APPENDIX G

Attention Students! New Class!

MATC Projects Hold, Second Chance & T.E.D. Offer

CAREERS IN COMPUTERS

It's no secret that **Vocational** and **Technical** areas are "IN" today and the employment trend of the **future**. Each day it becomes increasingly important that we become more aware of technology, especially the use of **Computers**. MATC is offering a demonstration computer course this summer through its Projects T.E.D., Hold and Second Chance. The course will introduce students to four (4) areas of computers and their use as it relates to the following fields:

- Computer Assisted Design (CAD)
- Office Technology
- Computer Numerical Control (CNC)
- Computer Integrated Manufacturing (CIM)

DATA

Credit . . . . . Upon completion, student receives one (1) high school credit
Dates . . . . . July 13, 1992 - August 23, 1992 (6 weeks)
Time . . . . . 10:00 a.m. - 12:30 p.m. (2½ hours)
Days . . . . . Monday through Friday (5 days per week)
Place . . . . . MATC, 700 West State Street, Milwaukee 53233
Cost . . . . . $9.10 per student

PLUS! Toward the end of the class, if attendance is good, students will be allowed to **Shadow** a Business Representative from a reputable employer. That is, students will visit a company and a representative will explain how his/her job is done. Students will gain hands-on experience at that company. Who knows? It could be the very company that you'd like to work for!

BEST COPY AVAILABLE

862-715-000

(1 Credit)

CAREERS IN COMPUTERS

Through introductory hands-on computer experiences, students will discover the world of high-tech computer applications and related career information in mechanical design, interior/architectural design, and office technology. Introductory CAD and rudimentary word processing exposure will be enhanced with related shadowing experiences in industry.

APPENDIX H

Technical Education Demonstration (TED) Project

AWARENESS PARTNERSHIP PROPOSAL

and

Milwaukee Area Technical College

COMMITMENT

The commitment of the company, the participating high schools, and MATC during 1992-1993 will be to:

1) Develop or enhance a work ethic in participating students

2) Improve the basic academic skills of participating students

3) Encourage and develop opportunities for high school students to continue their education

GOALS

GOAL 1. Impress upon students and teachers the importance and dignity of the manufacturing trades as career options

GOAL 2. Impress upon students the need to continue education beyond high school

GOAL 3. Impress upon students the importance of learning and mastering basic employment skills

GOAL 4. Develop a strong partnership/model among the company and participating schools that may serve as a guide for other companies and schools

STRATEGIES

GOAL 1. Impress upon students and teachers the importance and dignity of the manufacturing trades as career options

COMPANY STRATEGY

a. Facilitate jobside conversations between students/teachers and production/management employees to learn the need for and impact of

responsibility	self worth
attendance	self development
honesty	work ethic
teamwork	resolving problems
planning for the future	results of actions
learning to make decisions	career awareness

career preparation

b. Have students follow the flow of a product/service, from order entry to shipping, specifically noting the types of jobs required to complete the process

c. Introduce the basics and some complexities of sales and marketing, stressing the use of academic knowledge in achieving objectives

d. Explain the benefits given to employees by the company in return for productive employment

e. Describe how the company products/services affect the "global" economy

GOAL 2. Impress upon students the need to continue education beyond high school

COMPANY STRATEGIES

a. Have students learn from production and management employees what continuing education they have had and the impact of CE on their careers

b. Present to students a list of representative continuing education courses taken by employees, and schools attended

GOAL 3. Impress upon students the importance of learning and mastering basic employment skills

COMPANY STRATEGIES

a. Show students, at jobside, how academic learning is used on specific jobs, using at least one example for each category:

Reading	Writing	Talking	Listening
Culture	Sciences	Reading	Math
Second Language	Ind. Arts	Health	

GOAL 4. Develop a strong partnership/model among the company and participating schools that may serve as a guide for other companies and schools

COMPANY STRATEGIES

a. Understand the niche for the TED project among other similar programs

1. Primary populations served and population targeted for business shadowing
2. Differences of goals and objectives
3. Strategies
4. Assessments
5. Participants
6. High school support
7. MATC support

b. Communicate with MATC and high schools positive features of each student as well as concerns so that MATC and high school may consider enhancement of positive features and remedial activities to reduce concerns

a. Prepare students for shadowing experience

1. What to anticipate in sights and sounds and smells
2. Questions to ask employees
3. Look for use of education by employees
4. Look for the need to continue education after high school
5. Consider possible careers identified during shadowing
6. Learn new career possibilities from observations and questioning

b. Follow-up on shadowing experience with each student

1. What careers interest the student
2. What steps must the student take to
   (a) research career needs and satisfactions
   (b) prepare for entry-level position
3. Does the student want another shadowing experience with
   (a) the same company
   (b) a different company
4. Does the student understand the need to continue education after high school

c. Develop career awareness throughout school year

1. Impress upon student the basic uses of skills developed in
   (a) English and communications
   (b) mathematics and metrology
   (c) sciences
   (d) arts
2. Strengthen the understanding of how values impact upon employment
   (a) Education for Employment 60 points of awareness
3. Support continuing technical and non-technical education after high school
   (a) assure that student schedule includes adequate development of tech ed skills and knowledge
   (b) acquaint student with availability of
      (1) MATC courses leading to AA degree
      (2) company-sponsored inservices
      (3) manufacturer seminars
      (4) self study
      (5) reading discipline

4. Establish and maintain coordination the shadowing companies and MATC.

(a) scheduled briefings by
    (1) company
    (2) high schools
    (3) MATC
(b) shadowing of company personnel at
    (a) high schools
    (b) MATC
(c) shadowing of high school personnel at
    (a) company
    (b) MATC
(d) shadowing of MATC personnel at
    (a) company
    (b) high schools

MATC STRATEGIES

a. Execute exit interviews with employees, educators and students after each shadowing experience that will help to determine the impact of the program on each

b. Develop a written presentation that details the plan implementation and impact

c. Host student at MATC Junior or Senior Day

d. Host student shadowing experience of classes at MATC

e. Correlate with high school the student's curriculum between the high school and MATC

f. Create awareness of student's ability to earn MATC credits while in high school

g. Follow up shadowing experience with students and parents to support preparation for employment and continuing education

h. Arrange for tutoring of students where necessary

g. Maintain liaison with companies and high schools to constantly review and improve upon the awareness program

COMPANY STRATEGIES

GOAL 1. Impress upon students and teachers the importance and dignity of the manufacturing trades as career options

a. Facilitate jobside dialog between students/teachers and production/management employees to learn the need for and impact of

- ○ responsibility
- ○ self development
- ○ teamwork
- ○ results of actions
- ○ self worth
- ○ honesty
- ○ resolving problems
- ○ decision making
- ○ career preparation
- ○ attendance
- ○ work ethic
- ○ planning the future
- ○ career awareness

b. Have students follow the flow of a product/service, from order entry to completion, specifically noting the types of jobs required to complete the process

c. Introduce the basics and some complexities of sales and marketing, stressing the use of academic knowledge in achieving objectives

d. Explain the benefits given to employees in return for productive employment

e. Describe how the company products/services affect the "global" economy

GOAL 2. Impress upon students the need to continue education beyond high school

a. Have students learn from production and management employees what continuing education they have had and the impact of CE on their careers

b. List for students representative continuing education courses taken by employees to enhance their careers

GOAL 3. Impress upon students the importance of learning and mastering basic employment skills

a. Show students, at jobside, how academic learning is used on specific jobs, using at least one example, where applicable, for each category:

- ○ Technical Skills
- ○ Listening
- ○ Reading
- ○ Writing
- ○ Culture
- ○ Math
- ○ Talking
- ○ Sciences
- ○ Health

HIGH SCHOOL STRATEGIES

GOAL 1. Impress upon students and teachers the importance and dignity of the manufacturing trades as career options

a. Prepare students for shadowing experience
   1. What to anticipate in sights and sounds and smells
   2. Questions to ask employees
   3. Look for use of education by employees
   4. Look for the need to continue education after high school
   5. Consider possible careers identified during shadowing
   6. Learn new career possibilities from observations and questioning

b. Follow-up on shadowing experience with each student
   1. What careers interest the student
   2. What steps must the student take to
      (a) research career needs and satisfactions
      (b) prepare for entry-level position
   3. Does the student want another shadowing experience with
      (a) the same company
      (b) a different company
   4. Does the student understand the need to continue education after high school

c. Develop career awareness throughout school year
   1. Impress upon student the basic uses of skills developed in
      (a) English and communications
      (b) mathematics and metrology
      (c) sciences
      (d) arts
   2. Strengthen the understanding of how values impact upon employment
      (a) Education for Employment 60 points of awareness

GOAL 2. Impress upon students the need to continue education beyond high school

1. Support continuing technical and non-technical education after high school
   (a) assure that student schedule includes adequate development of tech ed skills and knowledge
   (b) acquaint student with availability of
      (1) MATC courses leading to AA degree
      (2) company-sponsored inservices
      (3) manufacturer seminars
      (4) self study
      (5) reading discipline
2. Establish and maintain coordination among the shadowing companies and MATC.
   (a) scheduled briefings by
      (1) company
      (2) high schools
      (3) MATC
   (b) shadowing of company personnel at
      (a) high schools
      (b) MATC
   (c) shadowing of high school personnel at
      (a) company
      (b) MATC
   (d) shadowing of MATC personnel at
      (a) company
      (b) high schools

MATC STRATEGIES

GOAL 1. Impress upon students and teachers the importance and dignity of the manufacturing trades as career options

a. Execute exit interviews with employees, educators and students after each shadowing experience that will help to determine the impact of the program on each

b. Maintain liaison with companies and high schools to constantly review and improve upon the awareness program

c. Correlate with high school the student's curriculum between the high school and MATC

GOAL 2. Impress upon students the need to continue education beyond high school

a. Host students at MATC's "Focus on Your Future"

b. Create awareness of student's ability to earn MATC credits while in high school

GOAL 3. Impress upon students the importance of learning and mastering basic employment skills

a. Host student shadowing experience of classes at MATC

b. Follow up shadowing experience with students and parents to support preparation for employment and continuing education

c. Arrange for tutoring of students where necessary

_____ _____ _____

Company Representative High School Representative MATC Representative

_____

Date

[This program is funded through a grant from the US Department of Education]

APPENDIX I

TED-LINES

Milwaukee Area Technical College

January, 1992
Volume II, Issue I

SPRING TECH PREP FUTURIST CONFERENCE

A Tech Prep Futurist Conference is tentatively scheduled for March 3, 1992, at MATC. The conference is targeting MATC and high school teachers and administrators along with local business people. The keynote speaker is Daniel M. Hull, national authority on tech prep and President and CEO of the Center for Occupational Research and Development in Waco, Texas. He is also the co-author, with Dale Parnell, of "Tech Prep Associate Degree: A Win Win Experience." Time will be allotted for a discussion of local tech prep initiatives.

Business leaders will be on hand to discuss their expectations of high school and technical college graduates. There will be time set aside for a free exchange of needs.

For more information, please contact Jimmy E. Hall at 225-4532.

PROJECT HOPE

PROJECT HOPE IS FOR YOU IF . . .

- you need to improve your skills for college-level work
- you are approaching graduation and want to continue your education
- you need career planning and advice
- you need help with financial assistance
- you have a desire to succeed

Project HOPE can put you on the path to success. We can provide academic, personal, and financial assistance. We will direct you to the proper resources to help you make a smooth transition from high school to an institution of higher education. We can be your link to a brighter future!!

If interested, please contact the HOPE staff at 414-225-1258 or 225-1254. We are here to help you get the education you deserve.

HIGH SCHOOL EDUCATORS WILL HAVE THE OPPORTUNITY ONCE AGAIN TO "BRIDGE THE GAP" BETWEEN ACADEMIC AND TECHNICAL EDUCATION

The three-week summer course "Integrating Academic and Technical Education" that was co-sponsored by UWM and MATC last summer will be offered again this summer. Arrangements are being made to offer graduate and undergraduate credit from UW — Stout, undergraduate credit from UW — Milwaukee, and MATC, MPS, and DPI in-service credit.

The course will include lectures by MATC technical instructors, field trips, hands-on experience with the newest industrial technology, and the completion of a curriculum writing project. Teachers will develop integrated curricular units that can be implemented in their respective schools. They can also learn how technology will impact students' career choices and how they as educators can relate academic skill in the workplace.

The course will be offered three times this summer.

Session I
Monday, June 15 — Tuesday, July 7

Session II
Monday, July 6 — Tuesday, July 28

Session III
Monday, July 27 — Tuesday, August 18

Each session will run from 8 a.m. to 2:15 p.m., Monday through Thursday. The cost will be $25.00.

For more information or reservations, please call Jimmy Hall at 225-4532.

TED CALENDAR HIGHLIGHTS

FEBRUARY, 1992
Focus on Your Future
2/6
2/13
2/17

MARCH, 1992
Focus on Your Future
3/5
3/18
3/24

MATC is an Affirmative Action/Equal Opportunity Institution

SHADOWING

The recruitment staff in the High School Relations Division has developed shadowing opportunities in the Technical and Industrial area for Metro Milwaukee High School sophomores, juniors, and seniors. Shadowing is a marvelous opportunity for high school students to experience a college-level course for a half day at MATC. The high school student will be paired with a college-level student in that particular area.

Shadowing is designed to accomplish the following goals.

- To introduce students to technology
- To expose students to a regular college classroom setting
- To alleviate fears about technical careers and give hands-on exposure
- To have high school students meet and work with college students and instructors

For more information please contact Jimmy Hall or any TED staff member at 225-4532.

TALENT SEARCH

MATC Talent Search is a federally funded program that will assist 1,000 students from three MPS middle schools and four MPS high schools to stay in school, return to school if they've withdrawn, and gain admission/financial aid to a postsecondary institution after high school completion. Talent Search includes a component to also offer assistance to veterans and other adults who have withdrawn from a postsecondary institution and would like to reenroll.

Talent Search will offer ongoing supportive referral services to participants. For application procedures or additional information, call 278-6961.

ADMINISTRATORS, COUNSELORS, TEACHERS

PLEASE CALL MATC HIGH SCHOOL RELATIONS FOR THESE NEEDS:

1. COLLEGE REPRESENTATIVES
2. CATALOGS, BROCHURES
3. TOURS
4. SHADOWING
5. ASSET TESTING FOR JUNIORS
6. FOCUS ON YOUR FUTURE FOR JUNIORS/SENIORS
7. CHALLENGE EXAM
8. ARTICULATION/ADVANCED STANDING
9. INTEGRATED TECHNICAL AND ACADEMIC CURRICULUM
10. FRESHMAN ORIENTATION
11. ALL YOUR OTHER NEEDS AND CONCERNS

CONTACT: Jimmy Hall, 225-4532, or Pat Roberts, 278-6725

ASSET TESTING RISING AMONG HIGH SCHOOL JUNIORS

The ASSET (Assessment of Skills for Successful Entry and Transfer) has been offered to high school juniors for the past three semesters. This past semester there were 86 juniors who took the ASSET test.

The ASSET, compiled and distributed by ACT (American College Testing), is not a Pass/Fail test. It is used as an assessment tool and is required for admission to MATC. The ASSET is one of three phases of a career guidance package. The second phase consists of a career planning session. During the third phase, the students are scheduled for individual appointments with a counselor.

The ASSET will be offered again in April, 1992. For more information, please contact Jimmy Hall at 225-4532.

matc
Milwaukee Area Technical College
700 West State Street
Milwaukee, Wisconsin 53233-1443

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TED-LINES

Milwaukee Area Technical College

July-September, 1992
Volume II, Issue III

This newsletter has been provided by the Technical Education Demonstration project which is sponsored by the State Office of Vocational Education. Audrey Keyes is the administrator of the project.

PEER LEADER TRAINING — MATC IMAGE CHANGERS

A pilot program to change students' perceptions of MATC was developed this summer. Johanna Hill from Riverside, Antonio Rockett from Hamilton, and Rashonda Jones from Vincent will act as a referral base within their high schools.

The program is under the direction of Pat Roberts and Brunnetta Soward. The students received two and one-half weeks of extensive training — learning about the admission process and the wide range of programs offered at MATC. One day of training took place at the North, South, and West Campuses to give the peer leaders an opportunity to learn about the specialty programs on those campuses.

One of the highlights of the training occurred when the students were introduced to Dr. Barbara Holmes. She was very interested in their initial impressions of MATC. Dr. Holmes met with the students at the end of their training to find out if their impressions had changed. Each of the students indicated that they were overwhelmed at the variety of programs and opportunities offered at MATC. They were eager to share the information with others. We hope to expand the program in 1993.

MATC'S EDUCATIONAL TALENT SEARCH WANTS STUDENTS . . . TO GET A HEAD START ON FALL SEMESTER CLASSES — SIGN UP FOR FREE TUTORING NOW!

Free tutoring available in math, reading, writing, and science for Grades 7-12.

WHEN — Call for dates and times

WHERE — Wherever is convenient for qualified applicants

HOW — If your students are between the ages of 12 and 27 and reside in the city of Milwaukee, have them call the MATC Educational Talent Search office at 278-6961 to see if they qualify for tutoring or any of the other free services available to Talent Search participants.

To find out more about Talent Search services, students may attend an orientation session which will be held at MATC, 700 West State Street. All meetings will be held in the Student Services Building (green building at Seventh and State) in Room S120. Call the number listed above for fall meeting dates and times.

MATC's Educational Talent Search is a federally funded project.

TECH PREP QUIZ

DIRECTIONS: Place the appropriate response in the space provided.

____ 1. What is "Tech Prep"?

a. an educational program designed to provide students with technical education and experiences for preparation for further education or work
b. a counseling and career education program
c. a new treatment for hemorrhoids
d. both a and b

____ 2. Tech Prep is designed to replace:

a. the college preparation track
b. the general education track
c. fine arts and humanities
d. both b and c

____ 3. (True or False) Tech Prep is a state mandate for public schools.

____ 4. An important focus of Tech Prep is:

a. to attempt to provide a meaningful education program for "at risk" students
b. to provide "gender equity" for students in enrolling in nontraditional courses
c. to make academics relevant for ALL students
d. all of the above

____ 5. Tech Prep programs involve:

a. students and parents
b. all academic staff (teachers, counselors, administrators)
c. business and industry
d. all of the above

____ 6. Tech Prep programs are currently funded by:

a. the taxpayers
b. your school district
c. the Carl Perkins grant
d. manna from heaven

____ 7. Tech Prep curriculum is:

a. a copyrighted education program that will cost your school a zillion dollars
b. an education curriculum that involves the technical and vocational departments in your school
c. an education curriculum that connects technical and business education with academic subjects
d. both b and c

____ 8. (True or False) Tech Prep is a very new educational concept.

____ 9. Initially, Tech Prep:

a. is a rather expensive and time-consuming proposition (like any new curriculum)
b. will give you headaches
c. involves a great amount of time in planning and organization
d. all of the above

____ 10. In the long run:

a. Tech Prep can expand to include all students who are interested in technical areas of study
b. Tech Prep will provide marginal students with valuable, useful, and employable skills
c. Tech Prep will significantly decrease the dropout rate in your school and all schools on a national scale
d. all of the above

ANSWERS: Tech Prep Quiz

1 — D	5 — D
2 — B	4 — D
3 — T	8 — F
4 — D	7 — D
5 — D	10 — D

If you missed more than two answers, you may want to call MATC, 278-6725, for an informational presentation about Tech Prep.

APPLIED ACADEMICS AND TECHNICAL COURSES MAKE A PERFECT TEAM!!

Approximately 30 MATC high school students will take Applied Communications and either CAD or a computer class this fall!

Instructors will be integrating their lesson plans so that students will be able to apply what they are learning in their applied classes to their tech classes and vice versa. Therefore, the student will be better prepared for the world of work!

ADMINISTRATORS, COUNSELORS, TEACHERS

PLEASE CALL MATC HIGH SCHOOL RELATIONS FOR THESE NEEDS:

1. College Representatives
2. Catalogs, Brochures
3. Tours
4. Shadowing
5. ASSET Testing for Juniors
6. Focus on Your Future for Juniors/Seniors
7. Challenge Exam
8. Articulation/Advanced Standing
9. Integrated Technical and Academic Curriculum Presentations
10. Freshman Orientation
11. All Your Other Needs and Concerns

CONTACT: Pat Roberts, 278-6725

Are you looking for speakers, hands-on presentations, etc., for your students this fall? We can help you by arranging interesting and innovative presentations in the following areas and much more!

- Admission presentations
- Career and employment workshops
- Current job market information
- Informational presentations for parents
- Minority and motivational speakers
- Recruitment presentations
- MATC instructor presentations:

  T & I (Technical and Industrial)
  Various Health Occupations
  Business Careers
  Other (as requested)

Presentations will be tailored to meet the needs of your classroom. Call 225-4532 for information and scheduling.

MATC is an Affirmative Action/Equal Opportunity Institution

APPENDIX J

ROBERT W. KASTEN, JR.
WISCONSIN

United States Senate
WASHINGTON, DC 20510-4902

September 16, 1992

Editor
Views and Visions
44 East Mifflin Street, Suite 104
Madison, WI 53703

Dear Editor:

I was pleased to read the article on the Technical Education Demonstration program in the August issue of Views & Visions. It is a wonderful opportunity for high school students to explore various careers before graduation. I commend the Milwaukee Area Technical College and the Technical Education Demonstration project on their insight and initiative, and wish them the best of luck with these endeavors.

Best regards,

Robert W. Kasten, Jr.

RWK/hpr

Federal grant

College gets $446,231 for TED program

By Douglas Johnsen

Times Staff Reporter

A whopping $446,231 federal grant was awarded to the college's High School Relations Dept. for the first year of a two-year Technical Education Demonstration (TED) program.

The local program is one of five TED programs in the country receiving support from the US Dept. of Education, and the MATC program received the lion's share of money awarded.

"The purpose of TED is to help students between the ages of 16 and 21 with limited job skills to receive technical training or enter employment," explained Joseph Pellegrin, director of High School Relations.

Pellegrin said the TED program has developed two summer courses for 50 teachers in integrating basic skills with technical education. "We have a full-time person at Custer High School and another at Riverside," Pellegrin said.

"We hope to have a person in each of eight public high schools in the city," he said.

Other highlights of the program include:

- Matching high school students with worthwhile technical jobs.
- Enrolling community-based organization students in a technology survey course designed to interest students in further technical training.
- Giving students a certificate of initial mastery attesting to their abilities in basic skills, employability skills, and the use of basic hand tools.

"We have surveyed about 400 businesses in the area," said Pellegrin, "and all said that they would hire these people."

> **400 businesses said they'd hire these people** — Pellegrin

Pellegrin said that MATC would receive approximately $470,000 more from the Education Dept. for next year's TED program. Representatives from the federal government will visit MATC in August to examine how the program is progressing, Pellegrin said.

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MATC Tech-Ed project focuses on minority students

MILWAUKEE, WI - Did you know that less than 10 percent of the MPS's minority students are enrolled in vocational\technical programs?

The Technical Education Demonstration Program is working hard to impact these statistics. The three primary goals of the program are: To enhance secondary education by interfacing science, mathematics and communication skills with technical education, to enroll and graduate students form secondary and post-secondary technical programs and to place graduates in employment.

Recruitment of 15-16 year old students will place emphasis on "first generation workers" and black males, but will not be limited to this group.

Students are recruited for the TED project from Milwaukee Public Schools, MATC high school programs and community-based organizations. The program expects to reach 3,500 students in the Milwaukee area.

The project is funded by the United States Office of Education of Vocational and Adult Education. The project administrator is Audrey B. Keyes. If you have questions please call Ms. Keyes at 278-6479 between 8 a.m. and 4 p.m.

Milwaukee Community Journal April 24, 1991 page

MATC gets federal $$$ to develop technical education program for low-income minorities

programs out there which minorities do not normally find out about," said Jimmy Hall, coordinator of the program.

"We are targeting the minority population because you do not normally find them in technical and high paying jobs.

"It is also an opportunity for first generation work people, that is, those whose parents did not get jobs."

The program will interface mathematics, science, and communication skills with technical education.

In addition, technical education curriculum will be improved through the integration of basic skills, stronger linkage with business and industry and exposure to current technology.

According to Hall, the program is designed to "remove the fear of technical education, provide easy entry into technical and industrial programs; and recruit, train and retain 'at risk' students for technical education."

There is also a two-week survey technical course in which students will be given the opportunity to have hands-on training in electrical machine shop, carpentry and auto repair.

"We have to try to catch up with the White community," Hall believes.

"Every time I drive around and see one of those heavy bulldozers, there are only White people working (even in the African American community).

"You don't normally see Black people earning $30 or $35 an hour working those jobs and this i chance to eliminate those fears have someone mentor them."

There is also a job compone which will employ 50 students technical jobs upon completion the program.

"They can interview for th jobs, since they now have the sk to take to those jobs," he said.

Milwaukee is one of five cities receive the federal grant $436,000 for fiscal year 1991 operate the program.

A pilot program will begin in fall 1991 at Riverside and Cu High Schools.

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MATC's Technical Education Demonstration project has among its goals to advance secondary education by interfacing science, math, and communication skills with technical education.

Student Education and Employment Goals Are Main Objectives of College Project

MATC's Technical Education Demonstration (TED) project, funded by the United States Office of Education, Office of Vocational and Adult Education, has three primary goals designed to help students achieve education and employment goals.

The project's goals are: enhance secondary education by interfacing science, math, and communication skills with technical education; enroll and graduate students from secondary and postsecondary technical programs; and place students in employment.

Students are recruited for the TED project from the Milwaukee Public Schools, MATC high school programs, and community-based organizations. The program expects to reach 3,500 students in the Milwaukee area.

The TED project is part of the college's High School Relations Division and works closely with MATC's Project Second Chance and Project Hold. Its staff includes Audrey Keyes, administrator (278-6479); Tom Moede, Technical Education coordinator (225-4532); Pat Roberts, Recruitment/Technical Education coordinator (278-6725); Bryant Van Cronkhite, Technical Education coordinator (225-4532); David Levine, MPS coordinator — Riverside High School (964-9393, Ext. 5034); Jimmy Hall, Recruitment/Basic Skills coordinator (225-4532); Charlesetta Thompson, Basic Skills coordinator (278-6725); Brilton Rodriguez, Outreach Specialist (225-1238); and Muhsana Mateen, MPS coordinator — Custer High School (461-6600).

MATC's staff are among educators nationally who are part of a growing movement to develop a "Certificate of Initial Mastery," attesting to student competency in basic math, communication skills, and reading. MATC plans to take a leadership role in the development of the criteria for the certificate.

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Federal grant

College gets $446,231 for TED program

By Douglas Johnsen

Times Staff Reporter

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Tom Gould

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P R O F I L E

Adviser marks 20 years with Times

It all started inconspicuously enough. In October of 1970, the name Tom Gould first graced the pages of The Times, as the byline on an article entitled "Fire Tech training one of the best in nation." That article marked the beginning of Gould's 20-year affiliation with The Times.

Though you won't see his byline in the paper these days, Gould continues to make his presence felt as The Times' adviser, the position he has held since 1978. Like most two-year college newspapers, The Times is subject to a high turnover rate (six editors-in-chief in the past

*-Milwaukee Courier June 15, 1991
*a community newspaper

MATC Focuses On Education & Employment For Minority Students

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APPENDIX K

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